LaserGo, Inc

GoScript Plus®

PostScript Language Interpreter for the IBM PC

Print PostScript Language Text and Graphics on Laser, Ink Jet and Dot Matrix Printers

PostScript® Language Power for Your Printer

GO SCRIPT®

PostScript Language Interpreter for the IBM PC

Guide

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Colophon

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1

Introduction

This chapter provides general information about *GoScript* and how it works.

If you are a first-time user of *GoScript* be sure to read the Overview section before starting.

Read the System Requirements section in this chapter and be sure that your system configuration meets the criteria listed before opening the License Agreement diskette envelope. By opening the envelope, you agree to be bound by the terms of the Agreement.

Read the Package Contents section in this chapter and make sure that your package contains all the items listed.

To install *GoScript* on your system, follow the steps outlined in each of the following chapters:

Chapter 1: Introduction

Chapter 2: Installation

Chapter 3: *GoScript* Configuration

Chapter 4: Printing with *GoScript*

Appendix C: Printers and Output Devices

and one or more of the following chapters:

Chapter 5: *GoScript* and WordPerfect

Chapter 6: *GoScript* and Microsoft Word

Chapter 7: *GoScript* and Xerox Ventura Publisher

Chapter 8: *GoScript* and Aldus PageMaker

Chapter 9: *GoScript* and Microsoft Windows Applications

Chapter 10: *GoScript* and Borland Quattro

Chapter 11: *GoScript* and Other Applications

Please note the information at the end of this chapter concerning our technical support provisions.

Overview

GoScript produces publication quality output from PostScript language print files generated by most IBM PC word processing, desktop publishing and graphics applications. Use *GoScript* with your laser, ink jet, or dot matrix printer.

Many applications produce their highest quality output only with their PostScript language printer driver. *GoScript* allows you to select the PostScript driver within your application, gain access to the state-of-the-art PostScript language typographic features provided by the application, and print the resulting output on your printer.

GoScript includes thirteen (13) high-quality scalable outline fonts: Roman (similar to Times Roman typeface), Sans (similar to Helvetica typeface), and Courier typefaces in Upright, Italic, Bold, and Bold Italic versions, and the Symbol typeface.

GoScript Plus includes thirty-five (35) high-quality scalable outline fonts: those listed above, plus four variations of each of AvantGarde, Bookman, Sans-Narrow (similar to Helvetica Narrow), New Century Schoolbook, Pal (similar to Palatino), and ZapfChancery Medium Italic, and ZapfDingbats.

GoScript typefaces may be scaled to any point size, used in portrait or landscape orientation, rotated, outlined, or enhanced with other special effects supported by your application.

Here are some points to keep in mind as you install and begin to use *GoScript*.

- *GoScript* processes files in the PostScript language only. But even if you know nothing about the PostScript language, don't worry. Soon you'll be generating PostScript language files with your word processor and making your printer print pages you never thought possible.

- The secret is to trick your word processor, page makeup application or graphics program. Tell it that you have a PostScript printer. It will believe you, and let you have access to the PostScript language text and graphics features it supports. Depending on your application, you will be able to: print text any size without bit map "jaggies", print white text on a black background, rotate text on a page, choose from 13 or 35 different typefaces, print EPS graphics, etc. You make it happen in your application software, and *GoScript* allows your printer to print it.

- Configure your application for a PostScript printer by following the step-by-step instructions included in this Guide. Create a document. When you are ready to print, tell the application to print to disk. It will generate a PostScript language file describing your document. Normally this file would be sent directly to a printer port, but you have printed it to a filename instead. You now have a document file and a print file. Exit the application and process the PostScript language print file with *GoScript*.

- It's easy, and you'll love what your printer can do for you now!

System Requirements

You must have the following to use *GoScript*:

- A working knowledge of your computer equipment and DOS.

- IBM PC, PC/XT, PC/AT, PS/2 or compatible running PC- or MS-DOS 3.0 or later -- we recommend a system based on the 80286 or 80386 processor.

- 640 KB of memory in the PC (minimum 550 KB free to work in) and a fixed disk.

- A printer supported by *GoScript* -- see Appendix C: Printers. Additional printer information may be included in the README file on your Program/Driver Diskette.

  NOTE: Laser printers must have at least 1MB of memory available to print a letter size page of text and graphics at 300 dpi.

Optional System Recommendations

- An expanded memory board (LIM EMS version 3.2 or later) is recommended for use with *GoScript*. In order for *GoScript* to use expanded memory, you must have 1 MB for letter size pages at 300 dpi, 1.25 MB for legal or A4 size pages at 300 dpi, etc.

- An 8087, 80287, or 80387 numeric coprocessor is optional. It will speed up any floating point calculations *GoScript* must perform.

Package Contents

Your *GoScript* or *GoScript Plus* package contains the following:

- The GoScript Guide

- Software License Agreement diskette envelope

- *GoScript* three 5.25" or two 3.5" diskettes.
  GoScript Plus six 5.25" or three 3.5" diskettes.

- Registration Card

If any of these items are missing or damaged, contact the place of purchase immediately.

If the diskettes are not the correct size for your computer, contact LaserGo, Inc. for replacement diskettes.

The Software License Agreement

Read the Software License Agreement before opening the diskette envelope. By opening the envelope, you agree to be bound by the terms of the Agreement.

To make *GoScript* as trouble-free as possible, we have supplied it without copy protection. Users must, however, observe the restrictions outlined in the Software License Agreement.

The Registration Card

Take a moment to complete your registration card and return it to us, to be eligible to receive phone support, and so we can send you information on *GoScript* program updates and new features, as well as LaserGo newsletters and new product announcements.

NOTE: You must have returned your completed registration card to be eligibile for phone support.

The README File

The README file is on the Program/Driver Diskette. It contains important up-to-the-minute information about your *GoScript* package, including:

- Complete list of files on the distribution diskettes
- Updated list of printers supported by this release of *GoScript*, and any restrictions on the features supported by each printer
- Updates to the GoScript Guide

To view the README File:

- Examine it with your text editor, or
- Insert the Program/Driver Diskette in drive A:. At the DOS prompt, type

  MORE <A:README

  and press ENTER.

The README file will be displayed one screen at a time. Press any key to proceed to the next page. The PRINT SCREEN key can be used for a hard copy of any information in the README file.

NOTE: MORE is a DOS filter that displays as many lines as fit on the screen. You must have the DOS file MORE.COM on your system to use it.

Further Reading

Although most *GoScript* users will create PostScript language files with a PC based application program, the PostScript language is also a complete programming language which can be used by the advanced user to create text and graphics from scratch. *GoScript's* interactive mode is a useful tool for PostScript language programmers.

This Guide does not attempt to describe the PostScript language itself.

The following books contain tutorial or reference material about the PostScript language. They can be found in bookstores specializing in computer publications:

Smith, Ross. *Learning PostScript: A Visual Approach.* Peachpit Press, Berkeley, Calif. 1990. ISBN 0-938151-12-6.

The first primer on the PostScript language written for the nontechnical user. Provides hands-on, step-by-step exposure to the PostScript language. Even those with no programming experience can quickly see how to generate sophisticated graphic effects. Includes 180 sample PostScript language files created with the help of *GoScript* in interactive mode, and *GoScript's* EGA and VGA screen preview features. This publication is also available directly from LaserGo.

Adobe Systems, Inc. *PostScript Language Reference Manual.* Addison-Wesley Publishing Co., Reading, Mass., 1986. ISBN 0-201-10174-2.

A complete description of the PostScript language, and a reference describing each operator, data type, and predefined dictionary in the language.

Adobe Systems, Inc. *PostScript Language Tutorial and Cookbook.* Addison-Wesley Publishing Co., Reading, Mass. 1985. ISBN 0-201-10179-3.

A two part book. Part One is a tutorial on the use of the PostScript language. Part Two contains numerous examples of PostScript language programs that can be used to create complex pages containing text, graphics and images, with a line-by-line commentary for each program.

Adobe Systems, Inc. *PostScript Language Program Design.* Addison-Wesley Publishing Co., Reading, Mass. 1988. ISBN 0-201-14396-8.

Contains information on advanced features of the PostScript language, of interest mainly to developers of application programs which will generate PostScript language output.

The following materials may be ordered directly from their publishers:

PostScript Language Journal
P.O. Box 5763
Parsippany, NJ 07054

An independent publication devoted entirely to the PostScript language. It contains product announcements, descriptions of special PostScript programming techniques of interest to the advanced user, and examples of PostScript programs.

PostScript Programmer's Instant Reference Card
MicroLogic
P.O. Box 174
Hackensack, NJ 07602

A convenient reference card that shows all PostScript language operators and predefined dictionaries, as well as some examples of special effects; printed on a durable plastic sheet.

Technical Support

Should you encounter difficulty using *GoScript* or would like to report a discrepancy in the documentation, we are glad to provide assistance. Before contacting LaserGo Technical Support, please have the following information available:

- Versions and serial numbers of your LaserGo products
- The name and version of the application program that generated the troublesome print file
- The specific nature of the difficulty, and the exact wording of any error messages that appeared on your screen
- The last line of the DOS CHKDSK program readout.

To receive technical assistance, you can:

- Call our 24-hour Customer Assistance Bulletin Board. Set your modem or communication program to 300, 1200 or 2400 baud, 8 data bits, 1 stop bit per second, no parity, and dial 619/450-9370.

In addition to technical assistance, the bulletin board provides information about new software releases, additional printer drivers, usage tips, and an information exchange with users of other LaserGo products.

- Write to us at:
  GoScript Technical Support
  LaserGo, Inc.
  9369 Carroll Park Drive, Suite A
  San Diego, CA 92121

- Send us a FAX at 619/450-9334

- Phone us at 619/450-4600 Monday through Friday between 8:00 and 5:00 Pacific Time. When you call, identify yourself as a registered *GoScript* user needing technical assistance.

2

Installation

This chapter gives step-by-step directions for running *GoScript's* INSTALL program.

Also included are instructions for completing the optional step of modifying the AUTOEXEC.BAT file.

After completing the installation process, follow instructions in this chapter to print the *GoScript* demo files.

Before You Begin

- Read the System Requirements in Chapter 1 and be sure that your system configuration meets the requirements.
- Make back-up copies of all distribution diskettes and store copies in a safe place.

Starting the INSTALL Program

Follow these steps to install *GoScript* on your system. In this release of *GoScript*, files on the distribution diskettes are archived (in a compressed and unreadable form). You must run INSTALL.EXE to extract them.

NOTE: If you have an older version of *GoScript* on your system, be sure to delete the old executable, driver and font files from the GOSCRIPT directory before installing the new version.

NOTE: The Quick Start for DOS Experts instructions in previous manuals is no longer valid. You MUST run INSTALL.EXE to extract the compressed files.

1 Place the Program Disk (or 3.5" Program/Driver Disk) in drive A:.

2 At the DOS prompt, type A: and press ENTER to make drive A: the current drive. If you are installing *GoScript* from another drive, substitute the correct drive throughout these steps.

NOTE: If your screen is difficult to read during installation, press ESC to return to DOS. Restart the installation program by typing:

INSTALL MONO

Then press ENTER.

3 At the DOS prompt, type INSTALL and press ENTER. The installation program will begin, and the Main Menu will appear.

Using the arrow keys, highlight First Time Installation of GoScript and press ENTER.

A dialogue box will appear showing the default drive and directory for installation of *GoScript*:

C:\GOSCRIPT

4 Press ENTER to select the default response. The *GoScript* files will be decompressed and copied to this directory.

If your fixed disk is not drive C:, or if you wish to use another directory name, type your response. Substitute the appropriate drive name and directory throughout the installation procedure.

5 At each prompt of the INSTALL program, insert the appropriate diskette and press ENTER. The name of each file is displayed as it is copied to your fixed disk.

6 When the copy process is finished, follow the onscreen instructions to exit to DOS, then perform the steps outlined in Running the GSCONFIG Program, below.

Running the GSCONFIG Program

Follow these steps to configure *GoScript* for your printer and printer port.

1 At the DOS prompt, type:

GSCONFIG

and press ENTER to start up *GoScript's* configuration program.

2 A menu will appear listing the printer drivers supported by your version of *GoScript*. Using the arrow keys, highlight the desired printer driver and press ENTER. A double arrow will appear next to the driver name.

If you mark an incorrect driver, just highlight the correct driver and press ENTER.

NOTE: You may select only one printer driver. You can change printer drivers anytime, either by reconfiguring *GoScript*, or by specifying a temporary printer driver on the command line (see Chapters 3 and 4).

3 Press ESC to finalize your selection.

4 A menu will appear listing the printer ports available in your system. Using the arrow keys, highlight the desired printer port and press ENTER. LPT1 is usually a good choice. A double arrow will appear next to the selected port.

5 Press ESC to finalize your selection.

6 Press ESC to return to the Main Menu. Press ESC again to exit the INSTALL program.

Modifying the System Configuration Files - Optional

The following sections show you how to modify your system's configuration files AUTOEXEC.BAT and CONFIG.SYS. These procedures are optional.

Modifying the AUTOEXEC.BAT File

The steps outlined in this section are optional, but recommended. Modifying the AUTOEXEC.BAT file allows *GoScript* to be invoked from any directory on the drive.

1 Use your text editor or the ASCII mode of your word processor to open or create the file AUTOEXEC.BAT.

2 Add the name of the *GoScript* directory to the PATH command. Add a semicolon and the directory name to the list of directories. For example:

```
PATH C:\DOS;C:\PROGRAMS;C:\GOSCRIPT
```

3 Type

```
SET GS=C:\GOSCRIPT
```

to add a SET command to the AUTOEXEC.BAT file.

4 Save the new AUTOEXEC.BAT file, but do not save any word processor formatting codes into this file.

Modifying the CONFIG.SYS File

By performing the following steps, you ensure that the FILES and BUFFERS parameters of CONFIG.SYS are optimal for use with *GoScript*.

1 Use a text editor or the ASCII mode of your word processor to open the file CONFIG.SYS.

2 Appropriate values for FILES and BUFFERS are:

```
FILES = 20
BUFFERS = 30
```

3 Save the new CONFIG.SYS file, but do not save any word processor formatting codes into this file.

Printing the GoScript Demo Files

To be certain that *GoScript* is successfully installed on your system, print out the *GoScript* demo files.

1 Change to the GOSCRIPT directory.

2 Type

GS DEMO.PS

and press ENTER to print a demo file.

3 Repeat step 2 for DEMO1.PS, DEMO2.PS, DEMO3.PS, DEMO4.PS (and FONTDEMO.PS for *GoScript Plus*.)

Refer to Appendix D for sample printouts of the *GoScript* demo files.

These demo files are written in the PostScript language. In fact, any file that you process with *GoScript* must be in the PostScript language. Following chapters will explain how to use your word processor, page layout application, or graphics program to generate PostScript language files.

Notes:

3

GoScript Configuration

This chapter introduces and defines the operating parameters in the *GoScript* configuration file, GSCONFIG.CFG.

Also in this chapter are the simple steps for using the GSCONFIG.EXE program to modify the configuration.

NOTE: After you have chosen your printer, the default configuration of GSCONFIG.CFG is appropriate for most situations. Refer to the chapter specific to your application program for any required changes to the default configuration.

GSCONFIG.CFG Parameters

The following are valid parameters of the *GoScript* configuration file, GSCONFIG.CFG:

VMSIZE	Virtual memory size
DEFAULTFONT	File name of *GoScript* default font
FONTFILE	File name of additional *GoFonts* typefaces
FONTCACHE	File name of the font cache
TEMP	Directory for *GoScript* temporary files
EMS	Expanded memory
PAPERSIZE	Paper size
MANUALFEED	Paper feed method
DRIVER	Output device driver file name
PSPREAMBLE	File name of PostScript preamble file
LPTDEVICE	Printer port
DISPLAY	Screen driver file name
AUTOEXEC	Automatic PostScript language file name
XMS	Extended memory
FORMFEED	Send extra form feed command to printer

Refer to Appendix B for detailed descriptions of parameters.

Modifying the Configuration

GoScript comes with separate installation and configuration programs. Be sure to use GSCONFIG.EXE to reconfigure *GoScript* after first time installation. Do not use INSTALL.EXE to reconfigure *GoScript*, unless you want to reinstall *GoScript*!

1 Change to the GOSCRIPT directory by typing:

CD \GOSCRIPT

and pressing ENTER.

2 Start up the configuration program, GSCONFIG.EXE, by typing:

GSCONFIG

and pressing ENTER.

3 At the Main Menu, highlight Configure GoScript and press ENTER.

4 A dialog box will appear with the default response: GSCONFIG.CFG. Confirm the path and name of the configuration file to be retrieved, and press ENTER.

A menu of the configuration parameters will appear:

VMSIZE
FONTCACHE
TEMP
EMS
XMS
PAPERSIZE
MANUALFEED
DRIVER
DISPLAY
LPTDEVICE

Modifying VMSIZE, DEFAULTFONT, FONTCACHE, TEMP or PSPREAMBLE Fields

1 Using the arrow keys, highlight the item to be changed. Press ENTER.

2 When the dialog box appears, type your response. Press ENTER.

3 Repeat steps 1 and 2 until all modifications are complete.

4 Press ESC to return to the Main Menu.

Modifying EMS, XMS or MANUALFEED Fields

These items have a limited number of choices.

1 Using the arrow keys, highlight the item to be changed. Press ENTER.

2 Press ENTER to cycle through the choices. When the desired entry appears, selection is complete.

3 Repeat steps 1 and 2 until all modifications are complete.

4 Press ESC to return to the Main Menu.

Modifying PAPERSIZE, DRIVER, or LPTDEVICE Fields

1 Using the arrow keys, highlight the item to be changed. Press ENTER.

2 A secondary menu will appear. Using the arrow keys, highlight your selection and press ENTER.

A double arrow appears next to the selected item. If you select an incorrect item, highlight another item and press ENTER.

3 Press ESC to finalize your selection.

4 Repeat steps 1 through 3 until all modifications are complete.

5 Press ESC to return to the Main Menu.

Modifying DISPLAY or AUTOEXEC Fields

AUTOEXEC and DISPLAY parameters are not present in the default configuration file. You must add them into GSCONFIG.CFG with a text editor or the ASCII mode of your word processor if you want to use them.

Saving the Configuration File

The steps outlined in this section allow you to save the changes you have made to GSCONFIG.CFG.

1 At the Main Menu, use the arrow keys to highlight Exit to DOS, and press ENTER.

2 When prompted, type Y to save your configuration modifications.

3 A dialog box will appear to verify the path and filename. Enter any changes, or accept the default response and press ENTER.

4 Type Y to overwrite the old GSCONFIG.CFG file.

5 Type Y to exit to DOS.

Notes:

4

Printing With GoScript

This chapter details how to use *GoScript* to print PostScript language files.

This chapter gives you instructions on how to interrupt the *GoScript* printing process.

Refer to the list and explanation in this chapter of the printing options available with *GoScript*.

Running GoScript

To print a PostScript language file with *GoScript*, type:

```
GS  \path\filename.PRN
```

and press ENTER.

filename.PRN is the name of the PostScript language file you want to print.

path is the full path instruction. Unless filename.xPRN is in the GOSCRIPT directory (or the current directory), you need to tell *GoScript* where to find the file.

NOTE: Always include the file's extension when specifying the filename!

example: printing with GoScript

You have written a memo called MEMO.CHP to a co-worker using Ventura Publisher, and printed the file to the name MEMO.PRN in the TYPESET directory. To print with *GoScript*, simply:

Exit Ventura Publisher.

Change to the GOSCRIPT directory:

```
CD GOSCRIPT
```

Type:

```
GS \TYPESET\MEMO.PRN
```

and press ENTER to print the file.

If you have specified a preamble file in the PSPREAMBLE field of GSCONFIG.CFG, that file will be processed first. If you have specified a file name in the optional AUTOEXEC field of GSCONFIG.CFG, that file will be printed.

When *GoScript* begins, the following message appears:

```
GoScript Printing Utility, Version X.XX
Copyright (C) LaserGo, Inc., 1988. All rights reserved.

Printer Driver
Resolution xxx dpi Mode
GoScript Initializing Bitmap...Size = xxxKbytes of Disk File

Ready

Available Memory = xxx bytes VM = xxxx bytes Heap memory = xxx bytes
```

As the specified PostScript language file is opened, a message appears indicating the percentage of the total print file bytes processed, followed by a message indicating the number of the page being sent to your printer.

When processing is complete, the processing line indicates DONE, and you are returned to the DOS prompt.

NOTE: To print multiple files, separate the filenames with a space. If errors occur when printing multiple files, print each file separately.

Interrupting GoScript

<CTRL> C, or <CTRL> BREAK interrupts or aborts the printing process.

A prompt appears asking

Do you want to abort execution (Y/N)?

Enter Y to abort the processing of the file and return to the DOS prompt, or enter N to continue processing the file at the point of interruption.

Processing cannot be interrupted using this technique if *GoScript* has progressed through almost all of the print file, or has begun to transfer the print output to the printer.

The AUTOEXEC Parameter

AUTOEXEC is a new parameter that you can add to the *GoScript* configuration file if you so desire. If a PostScript language print file name is specified in the AUTOEXEC field of GSCONFIG.CFG, *GoScript* will automatically search for and print the specified file every print job.

NOTE: This parameter is only useful if you always print a file with a single file name; for example, if you have modified the Windows WIN.INI file to generate PostScript language files which are always called OUTPUT.PRN.

Refer to Chapter 3 for more information.

GSM Menu-Driven Interface

In addition to *GoScript's* DOS command line mode, *GoScript* can also be invoked from a pull-down menu program called GSM.EXE.

Use the menu-driven interface by typing at the DOS prompt:

```
GSM
```

and pressing ENTER. A menu will be displayed, showing the current configuration parameters and asking for the name of a print file.

Make any changes to the configuration using the pull-down menus.

Select the Print option, and enter the file name of the file you want to print, or press ENTER for a directory listing. After selecting or typing in a print file name, press ENTER again to print.

After the file has printed, you will be returned to the menu. Send another file to print, or select Quit to exit to DOS.

Interactive Mode

When no print file is specified on the command line, *GoScript* enters its interactive mode. To enter interactive mode from DOS, type:

```
GS
```

and press ENTER. Instead of the DOS prompt, you will see the interactive mode prompt:

```
GS>
```

In this mode you directly address the interpreter by entering PostScript language commands.

To exit the interactive mode, type quit in lower case letters and press ENTER.

Use the /W command line option to see the results of your PostScript code onscreen! Refer to the Temporarily Enable Screen Driver section of this chapter.

Refer to the Further Reading section of Chapter 1 for suggested books and journals dealing with PostScript language programming.

GoScript Command Line Options

The following options are available:

/Dfilename	Print-To-Disk
/W	Temporarily Enable Screen Driver
/H	High Printer Resolution
/L	Low Printer Resolution
/Pdriver.DRV	Temporarily Select Output Device
/FSfilename	Bitmap Image File Save
/FRfilename	Bitmap Image File Restore
/S	Save Font Cache
/R	Restore Font Cache
/Vfilename	Select Alternate VM file
/Nxx	Multiple Copies

Options must begin with a forward slash (/).

Options must be specified before the filename on the *GoScript* command line.

To specify multiple options, separate each option with a space. For example:

```
GS /Nxx /Pprinter.DRV \path\filename.PRN
```

Refer to the following pages for details and examples of each print option available with *GoScript*.

Print-To-Disk

This option redirects the translated printer output file created by *GoScript* to a file on disk rather than to a printer.

This option is recommended if you need to print a file repeatedly and want to save time in the long run by not processing the file several times. Printing a *GoScript* output file to disk takes a little longer than sending the output directly to a printer.

This option also allows you to process a file on one system, and print the raster file from a computer that does not have *GoScript*.

To print a *GoScript* output file to a disk, from the GOSCRIPT directory, type:

```
GS /Dfilename.DSK \path\filename.PRN
```

where filename.DSK is the name you wish to assign to the binary *GoScript* output file to be printed to disk, and filename.PRN is the PostScript language file that you want to process.

NOTE: Keep in mind that the resulting file can be very large. For example, a letter-size page at 300 dpi will be about 1MB in size.

NOTE: The disk file will contain format codes for the printer named in the GSCONFIG.CFG file. However, you can change the configuration, or use the /P command line option to temporarily specify a different printer driver for the print job.

If no path is specified, the disk file filename.DSK will be printed to the GOSCRIPT directory.

To subsequently print out this binary disk file, go to the GOSCRIPT directory, and type:

```
COPY filename.DSK LPTn /b
```

and press ENTER.

n indicates the specific parallel printer port (usually LPT1). /b indicates that the file is a binary file.

example: print GoScript output to disk

You have a lengthy, complex document created in a Windows application that may take a considerable amount of time to be processed by *GoScript*. You can use *GoScript* to print this file to a disk, and subsequently print the file on any computer system with no further processing.

Print the document to a PostScript language print file in the WINDOWS directory. Name the file OUTPUT.PRN.

Exit your Windows application.

To change to the GOSCRIPT directory, type:

```
CD GOSCRIPT
```

Type:

```
GS /DCOMPLEX.DSK \WINDOWS\OUTPUT.PRN
```

and press ENTER. The print file OUTPUT.PRN will be processed by *GoScript*, and the resulting *GoScript* output file will be placed in the GOSCRIPT directory and called COMPLEX.DSK.

To subsequently print this disk file, get into the GOSCRIPT directory, type:

```
COPY COMPLEX.DSK LPT1 /b
```

and press ENTER. The binary *GoScript* output file will be sent to the printer that is connected to LPT1.

Temporarily Enable Screen Driver

This option, /W, allows you to easily specify a predesignated screen driver for the current print job, without changing the configuration file or using the /P option and the entire driver name on the command line.

Then, whenever you use the /W option on the command line, *GoScript* will use the screen driver specified in the DISPLAY field of GSCONFIG.CFG.

To quickly view a print file, type:

```
GS /W filename.PRN
```

and press ENTER. You will see *GoScript* assemble your page onscreen.

EGA or VGA monitor required.

You can also use the /W option when starting up *GoScript* in the interactive mode. Type:

```
GS /W
```

and press ENTER. Type a line of PostScript language code and watch the results onscreen!

High and Low Resolution Printing

The printer driver parameters /H and /L command the selected printer driver to use the high resolution mode, /H, or the low resolution mode, /L.

When used in GSCONFIG.CFG after the driver file name, the option overrides the default print resolution.

When used on the command line, these options temporarily override the printer resolution specified in GSCONFIG.CFG, the *GoScript* configuration file.

To print a low resolution draft of a print file, from the GOSCRIPT directory, type:

```
GS /L \path\filename.PRN
```

To print a high resolution copy of a print file, from the GOSCRIPT directory type:

```
GS /H \path\filename.PRN
```

NOTE: /H and /L are ineffective if your printer driver has only a single resolution. See Appendix C to determine the resolutions supported by your printer. The message displayed by *GoScript* during processing shows the resolution that has been chosen for the current printing.

Temporarily Select Output Device

This option, /P, allows you to temporarily select an alternate output device driver. The select output device option temporarily overrides the printer driver specified in GSCONFIG.CFG, the *GoScript* configuration file.

NOTE: If the select output device option is used in conjunction with a printer resolution option, the /P option must precede the /H or /L option on the command line.

To temporarily change the printer driver, go to the GOSCRIPT directory, type:

```
GS /Pdriver.DRV \path\filename.PRN
```

and press ENTER. You may specify any of *GoScript's* output device drivers, including printer drivers, TIFF and PCX drivers, and screen drivers.

NOTE: Refer to Appendix C for a list of output device driver file names.

example: temporary printer driver

You want to print a PostScript language file generated by WordPerfect on an HP DeskJet, but your GSCONFIG.CFG file is set up for a LaserJet.

WordPerfect has generated a PostScript language file called WP.PRN and has placed it in the GOSCRIPT directory.

To change to the GOSCRIPT directory, type:

```
CD GOSCRIPT
```

Type:

```
GS /PDESKJET.DRV WP.PRN
```

and press ENTER.

Bit Map Image File Save and Restore

The bit map image file save and restore options allow a "raw" bit map image to be saved to a file on disk, then restored and merged with a PostScript language text file during printing.

The bit map image file save option, /FS, saves the raw *GoScript* bit map page image as filename.BIT prior to translation into printer graphics language. filename.BIT is the name you select for the bit map file page.

> NOTE: If a document saved with the /FS option has multiple pages, each page overwrites the previous page. Ultimately, only the final page is saved in the bit map file on your hard disk.

The bit map image file restore option, /FR, restores the raw *GoScript* bit map page image filename.BIT saved with the /FS option.

If a second file is specified on the *GoScript* command line, each page of the second file is overlaid with the restored bit map image page file filename.BIT

To save a bit map image file page of file1.PRN, from the GOSCRIPT directory, type:

```
GS /FSfilename.BIT \path\file1.PRN
```

and press ENTER.

To restore the bit map image file page and merge it with the printout of file2.PRN, from the GOSCRIPT directory, type:

```
GS /FRfilename.BIT \path\file2.PRN
```

and press ENTER.

> NOTE: Be sure to check the available space on your hard disk from time to time. The amount of space needed for bit map files varies with the printer resolution and the complexity of the file.
>
> For example, the size of the PostScript language file DEMO1.PS is 890 bytes. The same file's *GoScript* output file at 300 dpi is 581,915 bytes, and the bit map image of the file is 1,015,808 bytes.

example: merging a GoScript bit map image

You have developed letterhead for your company, and have created a PostScript language print file called LTRHEAD.PRN in the GOSCRIPT directory that contains only the letterhead design. You want to save the bit map file page to merge with letters and documents.

To process the PostScript language file and save it as a bit map image, change to the GOSCRIPT directory, type:

```
GS /FSLTRHEAD.BIT LTRHEAD.PRN
```

and press ENTER.

You now want to merge the bit map letterhead file with a PostScript language print file of a memo, MEMO.PRN in the CUSTOMER directory.

To print the two files on a single page, change to the GOSCRIPT directory, type:

```
GS /FRLTRHEAD.BIT \CUSTOMER\MEMO.PRN
```

and press ENTER.

NOTE: Be aware of the difference between the print-to-disk option and the bit map save option.

Print-to-disk prints to a disk file a completely processed page that is ready to send to your printer.

Bit map save saves the bit map image of the page in a format only *GoScript* can understand. It must be processed again by *GoScript* with the /FR option and merged with a PostScript language print file.

While the print-to-disk file size varies with content, a letter-size bit map image file at 300 dpi is always 1MB.

Save and Restore Font Cache

The font cache holds the most recently used bit map font characters, so that if a character is needed again, the bit map format is readily available, and does not have to be generated from the outline description.

NOTE: The font cache save and restore options are only useful if using downloadable PostScript outline fonts.

The save font cache option, /S, saves the font cache to a file after processing is complete.

NOTE: Saving a font cache overwrites any previously saved font cache!

The restore font cache, /R, option restores a font cache saved with /S for use with a specified file.

To save a font cache generated by using downloadable PostScript fonts in creating a print file, go to the GOSCRIPT directory, type:

```
GS /S \path\fontname filename.PRN
```

and press ENTER.

To use the saved font cache to process a print file, from the GOSCRIPT directory, enter

```
GS /R \path\fontname filename.PRN
```

The file in which the font cache is stored is specified by the FONTCACHE parameter in GSCONFIG.CFG, the *GoScript* configuration file. The default file is in the GOSCRIPT directory, and is named GS.CHE. To change the directory or filename, edit the FONTCACHE parameter in GSCONFIG.CFG.

NOTE: *GoScript* allocates 32KB for the font cache. If you use multiple downloadable fonts, the cache may become full, and characters saved early in the cache may be deleted to make room for later characters.

example: font cache save and restore

You have created a PostScript language print file of a flyer, FLYER.PRN in the GOSCRIPT directory. The file uses a downloadable PostScript outline font with the file name NEWFONT.AFM in the FONTS directory. You want to save the font cache generated.

Change to the GOSCRIPT directory, type:

```
GS /S \FONTS\NEWFONT.AFM FLYER.PRN
```

and press ENTER.

Later, you create a PostScript language print file of a second flyer, FLYER2.PRN in the GOSCRIPT directory. FLYER2.PRN uses the same font, NEWFONT.AFM. You want to use the previously saved font cache to save the time it takes *GoScript* to generate the bit map characters from their outline descriptions.

Change to the GOSCRIPT directory, type:

```
GS /R \FONTS\NEWFONT.AFM FLYER2.PRN
```

and press ENTER to print the file using the saved font cache.

Select Alternate VM

This option allows you to preprocess your application's PostScript language preamble file and save the resulting *GoScript* virtual memory file for use later with the /V command line option. You can recall the virtual memory file when you want to print any other PostScript language file generated by that application, and save the time it takes *GoScript* to process the preamble file.

Use the virtual memory image file option, /V, only if your application has a separate preamble file, as does Microsoft Word, that must be processed by *GoScript* before the unique print file itself.

To generate the virtual memory image file:

1 Change to the GOSCRIPT directory.

2 Start up *GoScript* in the interactive mode by typing:

```
GS
```

3 Run the preamble file:

```
(preamble.xxx) run
```

NOTE: The PostScript language is case sensitive. Always type PostScript language commands exactly as shown.

4 When processing is complete, save the contents of virtual memory to disk and quit the interactive mode, by typing:

```
save quit
```

5 If you are using Word 5.0, the virtual memory image file is saved with the name {GSVM03}.TMP, in the directory specified in the TEMP field of the GSCONFIG.CFG file, or in the current directory, if the TEMP field is empty.

Copy the virtual memory image file to the GOSCRIPT directory, and rename it something meaningful. For example:

```
COPY C:\{GSVM03}.TMP WORD.VM
```

To print a PostScript language print file generated by the application, use the /V option to recall the virtual memory image file:

```
GS /VWORD.VM filename.PRN
```

NOTE: An OUT OF VIRTUAL MEMORY error will result if you use the /V option with a print file that already contains a preamble.

NOTE: Use the virtual memory image file only with a print file generated by the same application.

NOTE: If you update to a new version of *GoScript* or the application, you must generate a new virtual memory image file.

Multiple Copies

This option, /Nxx, prints xx copies of each page, where xx is an integer from 1 to 99. Using the /N option is faster than processing a file multiple times to print multiple copies.

To print 2 copies of a print file, from the GOSCRIPT directory, type:

```
GS /N2 \path\filename.PRN
```

and press ENTER.

example: printing multiple copies

You have created a PostScript language print file of your resume, RESUME.PRN in the PERSONAL directory. You want to print 10 copies of the resume, without processing with *GoScript* 10 times:

Change to the GOSCRIPT directory, type:

```
GS /N10 \PERSONAL\RESUME.PRN
```

and press ENTER to print 10 copies of the resume.

Using the GoPrint Utility

The *GoPrint* utility allows you to print any ASCII text file in your choice of typeface and size. No PostScript language file is necessary.

NOTE: *GoScript* is not involved in processing files when you use *GoPrint*; *GoScript* processes only PostScript langauge files.

NOTE: If you print a PostScript language file with *GoPrint*, you will get a printout of the actual PostScript code itself!

Change to the GOSCRIPT directory. To use *GoPrint*, type:

```
GP
```

and press ENTER.

The *GoPrint* main menu will appear. Use the F2 key to pull down the FILES, TYPEFACE, LAYOUT, OPTIONS, or QUIT menu. As you select an option from the menu, it is displayed in the configuration status field. Options you may choose, and their default settings are as follows:

File to Print:	
Typeface:	**Courier**
Point Size:	**12 pt**
Orientation:	**Portrait**
Paper Size:	**Letter**
Lines per Page:	**66**
Top Margin:	**0.5 in**
Bottom Margin:	**0.5 in**
Left Margin:	**0.5 in**
Right Margin:	**0.5 in**
Printer:	**LaserJet Series II**

Use the pull-down menus to make any changes.

GoPrint reads the ASCII file, generates a bit map image of the page and sends it to the printer in graphics mode.

GoPrint supports the fonts in LaserGo's *GoFonts* Typeface Library.

Use *GoPrint* to print out ordinary ASCII files in extraordinary style. You could even print mailing labels in an attractive, attention-getting font.

5

GoScript and WordPerfect

This chapter explains how to configure WordPerfect for a PostScript printer and use WordPerfect to generate PostScript language print files that you can then print with *GoScript*.

Also included in this chapter is information about WordPerfect's font capabilities, and instructions for scaling fonts, accessing the Symbol font, and accessing the ZapfDingbats font.

Instructions in this chapter apply to WordPerfect versions 5.0 and 5.1. WordPerfect Version 4.2 does not have PostScript capabilities and is therefore not compatible with *GoScript*.

This section instructs you in how to configure WordPerfect for a PostScript printer and generate a PostScript language print file.

1 Install WordPerfect on your hard disk according to the instructions provided with WordPerfect.

2 At the DOS prompt in the WordPerfect directory, type WP and press ENTER.

3 Press SHIFT F7 for the Print Menu, and press S to select printer.

4 Insert the first WordPerfect Printer diskette into drive A:

5 Press 2 for additional printers.

6 If your version of WordPerfect is 5.0 or less, and you receive the prompt:

Printer Files Not Found

type 2, for other disk, and type the appropriate drive (A:, B:, etc). Press ENTER. Repeat steps 4 and 5 until the printer list appears on your screen.

If your version of WordPerfect is 5.1, and you receive the prompt:

Printer Files Not Found

you must use WordPerfect's INSTALL program to extract a printer.ALL file. Refer to the WordPerfect documentation for instructions. Appropriate printers are: "Apple LaserWriter" (if you have *GoScript* 13 font version), "Apple LaserWriter Plus", "Apple LaserWriter Plus/IINT/IINTX", or "PostScript (Additional)."

7 When the list of printers appears on the screen, use the arrow keys to highlight one of the printers listed above.

8 Press 1 to select the printer. Press ENTER to accept the selection.

9 At the Helps and Hints information screen, press 3 for the Select Printer - Edit menu.

10 Press 2 for Port.

11 Press 8 for Other.

12 At the prompt

Device or Filename

type the name and path of your print file, and press ENTER. We recommend that you use

\GOSCRIPT\WP.PRN

as the output print file name.

13 Press F7 twice to exit to the main editing screen.

14 Create and edit a document using WordPerfect.

Printing with WordPerfect

1 Press SHIFT F7 for the Print Menu.

2 Press 1 for Full Document.

WordPerfect creates a print file with the name selected in the installation process, such as WP.PRN.

3 At the main editing screen, press F7 to exit.

4 At the prompt

Save Document?(Y/N)

type Y and the file name. Do NOT use WP.PRN as the document name!

5 At the prompt

Exit WP?(Y/N)

type Y to Exit.

6 At the DOS prompt, change to the GOSCRIPT directory.

7 Type

GS WP.PRN

and press ENTER to print the PostScript language print file.

Font Capabilities

If you have *GoScript* (13 font edition), you can print the following typefaces from the WordPerfect font selection menu:

Times-Roman
Helvetica
Courier
Symbol

If you have *GoScript Plus Edition* (35 font edition), you can print the typefaces listed above, plus:

AvantGarde
Bookman
Helvetica Narrow
New Century Schoolbook
Palatino
ZapfChancery
ZapfDingbats

Select bold, italic, or oblique variations from the font selection menu, or use the WordPerfect bold and italic functions.

Scaling Fonts in WordPerfect

1 Press CTRL F8 for the font menu.

2 Press 4 for Base Font.

3 Use the arrow keys to highlight the desired font and press ENTER.

4 At the Point Size: prompt, enter the desired point size (5 to 500 points have been tested) and press ENTER to return to the main editing screen.

The WordPerfect size names may be used. The corresponding sizes in points (1/72") are as follows:

Fine	6.12 pt
Small	8.18 pt
Normal	11.26 pt
Large	14.28 pt
Very Large	20.40 pt
Extra Large	28.58 pt

The Symbol Font in WordPerfect

The Symbol font is accessible using the WordPerfect Compose feature.

1 Press CTRL F8 and select Symbol as the Base Font.

2 Refer to the character set maps in the Appendix of the WordPerfect manual to select the desired character.

3 Press CTRL 2 and enter the character map number, comma, and the character number. Press ENTER to create the character.

example: WordPerfect compose feature

You want to print the ® character.

Press CTRL F8 for the Font Selection menu.
Press 4 for Base Font.
Select Symbol as the Base Font.
Type the desired point size.
Return to your document.

See the WordPerfect literature for character sets. The ® character is in character set 4, and is character 22.

Press CTRL 2. Type:

4,22

and press ENTER.

The character will be represented on your screen as a box.

The ZapfDingbats Font in WordPerfect 5.0

In order to access the ZapfDingbats font in WordPerfect 5.0, you must obtain an additional printer driver diskette from WordPerfect.

1 Insert the additional printer driver diskette into drive A:

2 Press SHIFT F7 and press S to select printer.

3 Press 2 for additional printers, and 2 for other disk.

4 Highlight PostScript (Additional) or PostScript (Additional 2), and press 1 to select the printer.

5 At the prompt POADDI.PRS or POADD2.PRS, press ENTER.

6 Press F5 for directory, select 7 for other directory, and type A: for a directory of the files on the additional printer driver diskette.

7 Highlight the USERCHAR.TST file, and press 4 to print the file.

USERCHAR.TST is a map of the ZapfDingbat characters. The ZapfDingbat characters are in character set 12, and are accessed with the compose feature.

8 Select the character you wish to print from the character map. Press CTRL 2 and type:

12,n

and press ENTER. n is the number of the desired ZapfDingbat character. The character is represented on the screen by a box.

---

example: printing ZapfDingbats in WordPerfect

You want to print the ZapfDingbats character ➳.

Press CTRL F8 for the font selection menu.
Press 4 for Base Font.
Select ZapfDingbats as the Base Font.
Type the desired point size.
Return to your document.

Refer to the character map generated from the USERCHAR.TST file to determine the number of the desired character. The arrow character above is number 253 in character set 12.

Press CTRL 2, type:

12,253

and press ENTER.

The ZapfDingbats character will be represented on your screen as a box.

Notes:

6

GoScript and Microsoft Word

This chapter explains how to configure Microsoft Word for a PostScript printer and use Microsoft Word to generate PostScript language print files that you can then print with *GoScript*.

Also included in this chapter is information about Microsoft Word's font capabilities, and instructions for scaling fonts in Microsoft Word.

Instructions are included for Microsoft Word version 5.0, 4.0, and 3.1. Be sure to read and follow the instructions for your version of Microsoft Word.

Before you Begin

- You must modify the *GoScript* configuration file GSCONFIG.CFG virtual memory size parameter.

  To print PostScript language files generated by Microsoft Word, *GoScript's* virtual memory parameter must be set to VMSIZE=150. The default value of virtual memory is only 130. Refer to Chapter 3 for instructions.

- Install Microsoft Word on your hard disk according to the instructions provided with Microsoft Word.

  Or, if Microsoft Word is already installed on your system, follow Word's instructions for installing additional printers and appropriate preamble files.

Microsoft Word Version 5.0

Follow these steps to configure Microsoft Word 5.0 for a PostScript printer.

1 Run the Microsoft Word 5.0 Setup program. Perform each step of the installation in sequence.

2 When prompted to select a printer, select Apple LaserWriter/Apple LaserWriter Plus.

3 Complete the installation of Microsoft Word 5.0 as instructed in Word's documentation.

4 Start up Microsoft Word. Choose the PRINT OPTIONS command menu.

5 Press F1 for a list of installed printers, and select POSTSCRP for portrait and landscape mode.

6 In the Model field of the PRINT OPTIONS command menu, select PostScript-Single Bin.

7 Create and edit a document using Microsoft Word 5.0.

1 In the PRINT FILE command menu, type the print file name (for example, filename.PRN).

• NOTE: By naming your document filename.DOC and the PostScript language print file filename.PRN, for example, you can tell that the files are related, but that one is the document file and the other is its print file.

2 When the menu reappears, save the document file if you wish to, then use the QUIT command to exit Microsoft Word 5.0.

• NOTE: In Microsoft Word 5.0 the file POSTSCRP.INI is the PostScript preamble file. It contains printing instructions that do not appear in individual Microsoft Word print files. This file is in the same directory as Microsoft Word, and must be specified on the *GoScript* command line before the print file name.

3 At the DOS prompt, change to the GOSCRIPT directory. Type:

```
GS  \WORD5\POSTSCRP.INI  \WORD5\filename.PRN
```

and press ENTER to print the PostScript language print file.

Microsoft Word Version 4.0

Follow these steps to configure Microsoft Word 4.0 for a PostScript printer.

1 Run the Microsoft Word 4.0 Setup program. Perform each step of the installation in sequence.

2 When prompted to select a printer, select Apple LaserWriter if you have *GoScript,* or Apple LaserWriter Plus if you have *GoScript Plus.*

3 Continue installation. When asked if you want to install another printer, select YES. Then select Apple LaserWriter landscape if you have *GoScript,* or Apple LaserWriter Plus landscape if you have *GoScript Plus.*

4 Complete the installation of Microsoft Word 4.0 as instructed in the Word documentation.

5 Start up Microsoft Word. Choose the PRINT OPTIONS command menu.

6 Press F1 for a list of installed printers, and select POSTSCRP to set up a document with portrait orientation, or POSTSCRL to set up a document with landscape orientation.

7 Create and edit a document using Microsoft Word 4.0.

Printing with Microsoft Word Version 4.0

1 Save your document using the TRANSFER SAVE command menu.

2 In the PRINT FILE command menu, type the print file name (for example, filename.PRN).

NOTE: By naming your document filename.DOC and the PostScript language print file filename.PRN, for example, you can tell that the documents are related, but that one is the document file and the other is the print file.

3 When the menu reappears, use the QUIT command to exit Microsoft Word 4.0.

NOTE: In Microsoft Word 4.0 the files POSTSCRP.INI and POSTSCRL.INI are the PostScript preamble files, and contain printing instructions that do not appear in individual Microsoft Word print files. These files are in the same directory as Microsoft Word, and must be specified on the *GoScript* command line before the print file name.

4 At the DOS prompt, change to the GOSCRIPT directory. Type:

```
GS  \WORD\POSTSCRP.INI  \WORD\filename.prn
```

and press ENTER to print the PostScript language print file.

Microsoft Word Version 3.1

When configuring Microsoft Word 3.1, follow the instructions for Microsoft Word Version 4.0, except:

- When selecting a printer in step 2, use the right arrow key to access a list of installed printers, and select APPLASER for portrait orientation, or APPLAND for landscape orientation.
- The PostScript preamble files for Word 3.1 are:

APPLASER.INI

for portrait orientation, and

APPLAND.INI

for landscape orientation.

To print a portrait oriented PostScript language print file called filename.PRN, type:

```
GS  \WORD\APPLASER.INI  \WORD\filename.PRN
```

and press ENTER.

To print a landscape oriented PostScript language print file called filename.PRN, type:

```
GS  \WORD\APPLAND.INI  \WORD\filename.PRN
```

and press ENTER.

Using the PSPREAMBLE Field

When you print a PostScript language file generated by Microsoft Word with *GoScript*, you must actually process two files: first the PostScript preamble file, and then the PostScript language print file itself.

You can accomplish this two ways: specify the PostScript preamble file on the command line before the PostScript language print file, as outlined earlier in this chapter; or modify the GSCONFIG.CFG configuration file to automatically process the preamble file at the beginning of every print job.

Use a text editor or the ASCII mode of your word processor to add a line to the configuration file GSCONFIG.CFG. Type the appropriate preamble path and filename for your selected printer, listed above in the instructions for your version of Microsoft Word.

For example:

```
PSPREAMBLE = C:\WORD\POSTSCRP.INI
```

Once this preamble file has been specified, only Microsoft Word print files can be used unless the GSCONFIG.CFG file is modified, or the preamble field specification changed to NONE:

```
PSPREAMBLE = NONE
```

Font Capabilities

If you have *GoScript* (13 font version), you can print the following typefaces listed in the FORMAT CHARACTER font name menu in Microsoft Word:

Courier
Times-Roman
Helvetica
Symbol
Line Draw

If you have *GoScript Plus* (35 font version), you can print the following typefaces listed in the FORMAT CHARACTER font name menu in Microsoft Word:

Courier	AvantGarde
Times-Roman	Bookman
Helvetica	NewCentSchlbk
Symbol	Palatino
Line Draw	HelveticaNarrow
ZapfChancery	ZapfDingbats

Select bold and italic variations from the FORMAT CHARACTER command menu.

Each typeface can be used in any size supported by Microsoft Word and listed in the FORMAT CHARACTER font size menu (8 points to 24 points in versions 3.1 and 4.0, up to 126 points in version 5.0).

To use fonts outside those included in *GoScript* or *GoScript Plus*, you must modify the Microsoft Word printer driver and install the fonts separately, or the Courier font will be substituted for these unsupported fonts. Refer to Chapter 13 for general information. Consult the Microsoft Word documentation and the font manufacturer's documentation for specific instructions.

7

GoScript and Xerox Ventura Publisher

This chapter explains how to configure Xerox Ventura Publisher for a PostScript printer and use Ventura Publisher to generate PostScript language print files that you can then print with *GoScript*.

Also included in this chapter is information about Ventura Publisher's font capabilities, and instructions for scaling fonts in Ventura Publisher.

GoScript has been tested with Ventura Publisher versions 1.1 and 2.0. Other versions may be similar, but have not been tested for compatibility.

Installation

This section gives instructions on how to configure Ventura Publisher for a PostScript printer.

1 Install Ventura Publisher on your hard disk according to the instructions in the Ventura Publisher Reference Guide.

2 When prompted to select a printer during installation, select POSTSCRIPT as your first printer.

NOTE: The PostScript printer must be designated as the main or ultimate printer, whether you are installing Ventura Publisher for the first time, or you are adding the PostScript printer driver after installation.

3 When prompted to select a port name, select any port from the menu. LPT1: is usually a good choice.

4 Complete installation of Ventura Publisher according to instructions.

5 Create and edit a document using Ventura Publisher.

Printing with Ventura Publisher

1 From the Options menu, select Set Printer Info. In the dialog box that appears, select Output To: Filename, but do not enter a filename now.

2 Select OK. Steps 1 and 2 need only be performed once.

3 From the File menu, select To Print. In the dialog box that appears, select any desired print options.

4 Check that the Print Information line confirms:

PostScript - Ultimate
Device Name: POSTSCRIPT
Output To: Filename

5 Select OK. A dialog box will appear indicating the Ventura Publisher default directory for print files, the TYPESET directory.

NOTE: The PostScript language print file you generate will be sent to the directory that you specify here.

At the Selection prompt, enter the name you want to give the print file.

NOTE: By naming your chapter filename.CHP and the PostScript language print file filename.C00, for example, you can tell that the files are related, but that one is the chapter file and one is its print file.

6 Select OK. A dialog box will indicate the current page being processed.

7 Select QUIT from the File menu to exit Ventura Publisher.

NOTE: When you exit Ventura Publisher, the printer information is saved, and is retained until you change it.

8 Change to the GOSCRIPT directory, type:

```
GS \TYPESET\filename.C00
```

and press ENTER.

Font Capabilities

If you have *GoScript* (13 font version), you can print the following typefaces listed in the Font dialog panel:

Helvetica
Times
Courier
Symbol

If you have *GoScript Plus* (35 font version), you can print the typefaces listed above, plus:

AvantGarde
Bookman
Helvetica Narrow
New Century Schoolbook
Palatino
ZapfChancery
ZapfDingbats

Select bold and italic variations from the font dialog panels. In Text Mode, any combination of bold and italic attributes can be selected from the Assignment List.

Fonts can be scaled to any size up to 255 points. Font size can be selected in the Font dialog panel using CUSTOM SIZE.

Line art, image files, and Encapsulated PostScript Format (EPS) files can be included in any frame to be printed with *GoScript*.

Notes:

8

GoScript and Aldus PageMaker

This chapter explains how to configure Aldus PageMaker and Microsoft Windows for a PostScript printer and use them to generate PostScript language print files that you can then print with *GoScript*.

Also included in this chapter is information about PageMaker's font capabilities, and instructions for scaling fonts in PageMaker.

GoScript has been tested with PageMaker versions 3.0 and 1.0a, Microsoft Windows versions 2.11, 2.03 and 2.01 (including Run-time version). Other versions may be similar, but have not been tested for compatibility.

Installation

This section instructs you in how to configure Microsoft Windows and PageMaker for a PostScript printer. Follow the instructions under the First Time Installation of Windows section, OR the Adding a PostScript Printer section. Then follow all the steps outlined in the rest of the chapter.

These instructions apply both to Run-time Windows included in the PageMaker package, and the full retail version of Windows.

PageMaker relies on Windows to perform all its printing tasks, so no additional installation in PageMaker is required.

First Time Installation of Windows

Follow the steps in this section to configure Windows for a PostScript printer as you install Windows on your system for the first time.

1 Install Microsoft Windows or Aldus PageMaker on your hard disk with the Windows Setup utility.

2 When asked to select a output device, select Apple LaserWriter[PostScript printer] if you have *GoScript* (13 font version), or Apple LaserWriter Plus if you have *GoScript Plus* (35 font version).

3 Select a printer port from the list. LPT1: is usually a good choice.

4 Complete the installation according to the instructions in the Setup utility.

Continue the configuration of Windows as outlined in the Modifying the WIN.INI section which follows.

Adding a PostScript Printer

If Microsoft Windows is already installed on your system, follow these steps to modify Windows by adding a PostScript printer to the configuration.

1 Start Microsoft Windows, or PageMaker if you are using Run-time Windows.

2 Open the Control Panel. Click on Installation. Click on Add New Printer.

3 If you are using the full version of Windows, insert the Windows Utilities 2 diskette into drive A:. If you are using Run-time Windows, use the Utilities/Fonts diskette. If you are using the PageMaker disks, use Drivers/Filters disk. Click on OK.

4 In the dialog box that appears, highlight PostScript Printer. Click on ADD. Click on YES.

5 Close the Control Panel.

Continue the configuration of Windows as outlined in the Modifying the WIN.INI section which follows.

Modifying the WIN.INI File

You must modify the Microsoft Windows configuration file to make Windows send the PostScript language print file to a file on disk, instead of directly to the printer.

1 Using a text editor or the ASCII mode of your word processor, load the WIN.INI file. WIN.INI is located in the WINDOWS directory, or the PageMaker directory if you are using Run-time Windows.

2 Immediately following the line reading [ports], insert a line reading:

OUTPUT.PRN=

NOTE: Enter the text exactly as shown! The equal sign at the end of the line is required. There should be no spaces on the line.

3 Save the new WIN.INI file in DOS text format. Exit your text editor or word processor.

Selecting the Printer

The printer selection steps outlined here need to be done only once. The configuration is saved until you change it with the Control Panel.

1 Start up Microsoft Windows, or PageMaker if you are using Run-time Windows.

2 Bring up the Control Panel, or double click on CONTROL.EXE.

3 Click on Setup. Click on Connections.

4 A dialog box will appear. In the left list, highlight the item that begins with Postscript printer on...

5 In the right list, scroll to find and highlight OUTPUT.PRN. Click on OK.

6 Close the Control Panel. Exit Microsoft Windows.

Printing with Aldus PageMaker

Create and edit a document using Aldus PageMaker.

NOTE: Additional steps for *GoScript Plus*. Click on File. Click on Printer Setup. Click on Setup button. Highlight Apple LaserWriter Plus. Now all 35 fonts will be displayed in the Type Specs menu.

Save and name the document. Take the following steps to use Windows and PageMaker to generate a PostScript language print file of the document.

1 Click on File. Click on Print. Click on OK.

A dialog box indicates the printing progress.

2 Exit Aldus PageMaker. Exit Microsoft Windows.

3 At the DOS prompt, change to the GOSCRIPT directory. Type:

```
GS \path\OUTPUT.PRN
```

and press ENTER. path is the dirctory in which the desired OUTPUT.PRN file is located.

NOTE: The PostScript language print file generated by Windows and PageMaker will be called OUTPUT.PRN, as you specified when you modified the WIN.INI file. OUTPUT.PRN usually appears in the same directory as the document file from which it was generated.

Any subsequent print file that you generate will overwrite the existing print file! If you want to keep a particular print file, be sure to rename it before you print again!

Font Capabilities

If you have *GoScript* (13 font version), you can print the following typefaces listed in the Type Specs dialog box:

Helv
TmsRmn
Courier
Symbol

If you have *GoScript Plus* (35 font version), you can print the typefaces listed above, plus:

AvantGarde
Bookman
Helvetica Narrow
New Century Schoolbook
Palatino
ZapfChancery
ZapfDingbats

Select bold and italic variations from the Type Specs dialog box.

Fonts can be scaled to any size from 4 points to 127 points. Select font size from the Type Specs dialog box.

Roman, Script, and Modern typefaces can be selected, but will not print with high quality, as they are Microsoft Windows bit map typefaces, not outline typefaces.

- NOTE: Other fonts that appear in the Type Specs dialog box cannot be printed by *GoScript* unless the fonts have been installed on the system and specified to *GoScript* correctly. Refer to Chapter 13 for font information. Unsupported fonts will print out as Courier.

Line files and halftone images can be printed.

Notes:

9

GoScript and Microsoft Windows Applications

This chapter explains how to configure Microsoft Windows and your Windows application for a PostScript printer, and use them to generate PostScript language print files that you can then print with *GoScript*.

Also included in this chapter is general information about Windows applications' font capabilities.

GoScript has been tested with Windows versions 2.11, 2.03 and 2.01. Other versions may be similar, but have not been tested for compatiblity.

Compatibility

Applications based on Microsoft Windows should be compatible with *GoScript*. The following Windows applications have been tested with *GoScript*:

Aldus PageMaker	Arts and Letters
CorelDraw!	Adobe Illustrator
Samna Ami	

Other Windows applications may also be compatible, but have not been tested.

Installation

This section instructs you in how to configure Microsoft Windows for a PostScript printer. Follow the instructions under the First Time Installation of Windows section, OR the Adding a PostScript Printer section. Then follow all the steps outlined in the rest of the chapter.

First Time Installation of Windows

Follow the steps in this section to configure Windows for a PostScript printer as you install Windows on your system for the first time.

1 Install Microsoft Windows on your hard disk with the Windows Setup utility.

2 When asked to select an output device, select Apple LaserWriter[PostScript printer] for *GoScript* (13 font version), or Apple LaserWriter Plus for *GoScript Plus* (35 font version).

3 Select a printer port from the list. LPT1: is usually a good choice.

4 Complete the installation according to the instructions in the Setup utility.

Continue the configuration of Windows as outlined in the Modifying the WIN.INI section which follows.

Adding a PostScript Printer

If Microsoft Windows is already installed on your system, follow these steps to modify Windows by adding a PostScript printer to the configuration.

1 Start up Microsoft Windows.

2 Open the Control Panel. Click on Installation then click on Add New Printer.

3 Insert the Microsoft Windows Utilities 2 diskette into drive A:. Click on OK.

4 In the dialog box that appears, highlight PostScript Printer. Click on ADD. Click on YES.

5 Close the Control Panel.

Continue the configuration of Windows as outlined in the Modifying the WIN.INI section which follows.

Modifying the WIN.INI File

You must modify the Microsoft Windows configuration file to make Windows send the PostScript language print file to a file on disk, instead of directly to the printer.

1 Using a text editor or the ASCII mode of your word processor, load the WIN.INI file. WIN.INI is located in the WINDOWS directory.

2 Immediately following the line reading [ports], insert a line reading:

OUTPUT.PRN=

- NOTE: Enter the text exactly as shown! The equal sign at the end of the line is required. There should be no spaces on the line.

3 Save the new WIN.INI file. Exit your text editor.

Selecting the Printer

The printer selection steps outlined here need to be done only once. The configuration is saved until you change it with the Control Panel.

1 Start up Microsoft Windows.

2 Bring up the Control Panel, or double click on CONTROL.EXE.

3 Click on Setup. Click on Connections.

4 A dialog box will appear. In the left list, highlight the item that begins with Postscript printer on...

5 In the right list, scroll to find and highlight OUTPUT.PRN. Click on OK.

6 Close the Control Panel. Exit Microsoft Windows.

Printing with Windows Applications

Create and edit a document using your Windows application. Save and name the document.

Take the following steps to use Windows and your application program to generate a PostScript language print file of the document.

1 Within your application, send the document to print. Confirm that the print output is being directed to a file rather than to the printer port.

2 Exit the Windows application. Exit Microsoft Windows.

3 At the DOS prompt, change to the GOSCRIPT directory. Type:

```
GS \path\OUTPUT.PRN
```

and press ENTER.

NOTE: The PostScript language print file generated by Windows and your application program will be called OUTPUT.PRN, as you specified when you modified the WIN.INI file. OUTPUT.PRN usually appears in the same directory as the document file from which it was generated.

Any subsequent print file that you generate will overwrite the existing print file! If you want to keep a particular print file, be sure to rename it before you print again.

Font Capabilities

The degree to which the PostScript language is supported varies depending on the application program. Your application program may list available fonts by names other than the names of the *GoScript* fonts.

If you have *GoScript* (13 font version), you can print the following typefaces listed in the Type Specs or Font dialog box:

Helvetica
Times
Courier
Symbol

If you have *GoScript Plus* (35 font version), you can print the typefaces listed above, plus:

AvantGarde
Bookman
Helvetica Narrow
New Century Schoolbook
Palatino
ZapfChancery
ZapfDingbats

Select bold and italic variations from the Type Specs or Fonts dialog box.

Each typeface can be used in any point size supported by your application and printer resolution.

Notes:

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GoScript and Borland Quattro

This chapter explains how to configure Borland Quattro and Quattro Pro for a PostScript printer and use them to generate PostScript language print files that you can then print with *GoScript*.

The installation process is different for Quattro and Quattro Pro. Follow the steps outlined in the section specific to your application.

Also included in this chapter is information about Quattro's and Quattro Pro's font and graphics capabilities.

Instructions in this chapter apply to Quattro version 1.0 and Quattro Pro version 1.0. Other versions may be similar, but have not been tested.

Quattro

There is no special installation procedure required for Quattro . You can generate PostScript language print files on disk at any time, with Quattro configured for any printer.

Printing with Quattro

Create and save a graphic document using Quattro. Take the following steps to use Quattro to generate a PostScript language print file of the document.

1 Select Graph. Select Print.

2 Select Print. Select Write EPS/PIC, then EPS File.

3 Enter a file name, but do not specify a file extension. Quattro adds the file type extension .EPS, for example, filename.EPS.

4 When the menu reappears after the PostScript language print file has been created, select QUIT, and then exit Quattro.

5 Change to the GOSCRIPT directory. Type:

GS filename.EPS

and press ENTER.

Quattro Pro

Follow these steps to configure Quattro Pro for a PostScript printer. Follow the instructions under the First Time Installation of Quattro Pro section, OR the Adding a PostScript Printer to Quattro Pro section.

Then follow the steps outlined under Printing with Quattro Pro.

First Time Installation of Quattro Pro

Follow the steps in this section to configure Quattro Pro for a PostScript printer as you install Quattro Pro for the first time.

1 Install Quattro Pro on your hard disk as instructed in the Quattro Pro documentation.

2 At the Printer Manufacturers menu, highlight PostScript Printers.

3 Press ENTER to accept the Default Printer, PostScript.

4 Press ENTER to accept the default Printer Mode, Normal.

Complete the installation according to the Quattro Pro documentation. Then turn to the Printing with Quattro Pro section of this chapter.

Adding a PostScript Printer to Quattro Pro

If Quattro Pro is already installed on your system, follow these steps to modify Quattro Pro's configuration for a PostScript printer.

1 Start up Quattro Pro.

2 Go to the /Options, Hardware, Printers menu. Highlight 1st Printer and press ENTER.

3 Select Type. Highlight Apple and press ENTER.

4 Highlight LaserWriter if you have *GoScript* (13 font version) or LaserWriter Plus if you have *GoScript Plus* (35 font version).

5 Quit and return to the Main Menu.

Turn to the Printing with Quattro Pro section of this chapter.

Printing with Quattro Pro

Create and save a graphic document using Quattro Pro. Take the following steps to use Quattro Pro to generate a PostScript language print file of the document.

1 Select Print. Select Graph Print. Select Write Graph File.

2 At the Enter EPS file name menu, press ESC twice. Type:

C:\GOSCRIPT\filename.PRN

and press ENTER.

NOTE: By naming your document file filename.doc and the PostScript language print file filename.PRN, for example, you can tell that the files are related, but that one is the document file and the other is its print file.

3 Quit the Write Graph File, Graph Print, and Print menus.

4 Exit Quattro Pro.

5 Change to the GOSCRIPT directory. Type:

GS filename.PRN

and press ENTER.

Graphics Capabilities

GoScript will take advantage of most of Quattro's and Quattro Pro's printing capabilities.

Any colors specified for elements of a Quattro or Quattro Pro graphic will be represented as shades of gray.

11

GoScript and Other Applications

In this chapter, guidelines are provided for determining compatibility between your application and *GoScript*. A list of applications that have been used successfully with *GoScript* is also included.

After determining that your application is compatible with *GoScript*, follow the general guidelines in this chapter for configuring your application for a PostScript printer and for using your application to generate PostScript language print files.

Compare the list of *GoScript's* font capabilities with the features that your application supports. Since *GoScript* does not modify the PostScript langauge file you generate, you will be able to print only the features that your application supports.

Compatibility

An application program must have the following capabilities to be compatible with *GoScript*:

- Be able to generate PostScript language print output.
- Be able to save the PostScript language print output to a standard DOS file.

LaserGo does not guarantee that any application which meets these requirements will be compatible with *GoScript*. Some applications, due to complexity or to the resources necessary to process the output, may not be compatible, or may have some limitations.

GoScript has been successfully tested with the following programs:

Adobe Illustrator	Lotus Freelance
Ami	The Office Publisher
Arts and Letters	The Office Writer
Bitstream Fontware	Personal Composer
Corel Draw!	PFS: First Publisher
DESQview 386	PlanPerfect
Fluent Laser Fonts	PrintCache
Harvard Graphics	Publish It!
Headroom	SigmaPlot
Hijaak	SuperCalc 5.0
Interleaf	WordStar 2000, and 5.5

Additionally, *GoScript* users have reported printing successfully with the following programs:

AutoShade	Score
Express Publisher	Sprint
GEM Draw	TeX
Lotus Manuscript	Total Word
Microsoft Excel	Word for Windows
PerForm	

Installation

1 Install your program as instructed.

2 When prompted to select a printer, specify a printer compatible with the PostScript language. For example, specify Apple LaserWriter if you have *GoScript* (13 font version), or Apple LaserWriter Plus if you have *GoScript Plus* (35 font version); or PostScript Printer, if Apple LaserWriter is not offered.

3 When prompted to select a printer port, select the option that allows saving the print output to a file.

If this is not an option, select any port. LPT1: is usually a good choice.

Printing

Create and edit a document using your application program.

1 Direct the print output to a file. Refer to your application's documentation.

2 Specify a print file name to hold the print output until it is processed by *GoScript*.

- NOTE: By naming your document file filename.doc and the PostScript language print file filename.PRN, for example, you can tell that the files are related, but that one is the saved document file and the other is its print file.

3 Complete the print operation within the application.

4 Exit the application program.

5 Refer to your application's documentation to determine whether the PostScript preamble file is included in the print file, or stored as a separate file.

- NOTE: The preamble file is a brief PostScript language program containing information and definitions required by the interpreter to print the PostScript language print file which follows it.

  The preamble file may be included in the print file generated by the application, or it may be a separate file that you must run before each print job.

6 Change to the GOSCRIPT directory.

7 If the PostScript preamble is already included in the print file, type:

GS \path\filename.PRN

and press ENTER.

If the PostScript preamble is in a separate file, you must include it on the command line before the PostScript language print file. Type:

GS \path\preamble.xxx \path\filename.PRN

and press ENTER.

Font Capabilities

The degree to which the PostScript language is supported varies depending on the application program. This section provides only general guidelines. Your application may list available fonts by names other than the names of the *GoScript* fonts.

If you have *GoScript* (13 font version), you can print the *GoScript* typefaces which correspond to the following Adobe fonts:

Helvetica
Times
Courier
Symbol

If you have *GoScript Plus*, you can print the typefaces listed above, plus the *GoScript Plus* typefaces which correspond to the following Adobe fonts:

AvantGarde
Bookman
Helvetica Narrow
New Century Schoolbook
Palatino
ZapfChancery
ZapfDingbats

Each font (except Symbol, ZapfChancery, and ZapfDingbats), is available in normal, bold, italic, and bold-italic. Symbol is normal weight, and ZapfChancery is medium weight italic.

Each typeface can be used in any point size supported by your application and printer resolution.

Fonts other than those listed above may appear on your application's font selection menu. Other fonts cannot be printed by *GoScript* unless they have been installed separately. See Chapter 12 for general information on installing additional fonts. Unsupported fonts will print in Courier.

You can select letter, legal or A4 size paper. You may be able to select B size paper (11" x 17"), if *GoScript* supports this size on your wide-carriage printer. Refer to the section specific to your printer in Appendix C: Printers.

Notes:

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Fonts

In this chapter, definitions are given for the two commonly used font types: bit map and outline.

Also included is information about using *GoScript* with the *GoScript* resident fonts, LaserGo *GoFonts*, and additional third party downloadable fonts.

At the end of this chapter is a reference list of *GoScript* and *GoScript Plus* resident fonts.

All About Fonts

There are two types of fonts that are commonly used in conjunction with printers: bit map fonts and outline fonts.

Bit Map Fonts

A bit map font contains an exact, dot for dot representation of each character in the font. One bit map font can only be used at a single output device resolution; a bit map font for a laser printer cannot be used to print to a dot matrix printer. A separate font is required for each typeface, style, point size, and character orientation. Rotation of characters is generally impossible.

Consequently, an effective collection of bit map fonts requires a great deal of fixed disk space or printer memory, and offers limited design flexibility.

Most printers, with the exception of PostScript printers, use internally stored bit map fonts for their native text modes.

Outline Fonts

An outline font contains a geometric description of how the shape of each character in the font changes with size. A character's shape is described as a series of lines and curves, much as if the character was drawn with a pen.

The outline font is created by a skilled typographer with computer-aided design tools. The font is copied from specimens of the original typeface, which often bears its designer's name.

The typographer adds additional "hint" information to the outline description about how the shape of the character should change as the point size changes. For example, a character is often typographically different at 10 points and 72 points.

Because *GoScript's* fonts are hinted outline fonts, they can be used to:

- produce characters at any point size — as small as the resolution of your printer allows, or as large as the page,
- produce characters in portrait (upright) or landscape (sideways) orientation, or at any angle of rotation, and
- print fonts on an output device of any resolution, from a 180 dpi dot matrix printer, to a laser typesetter with a resolution of several thousand dpi.

With outline fonts, design flexibility is unlimited. Characters are optimized for their point size and the resolution of the printer.

The Resident GoScript Fonts

LaserGo licenses its fonts from their original source, URW Corporation of Hamburg, West Germany. URW has been an important contributor to the typeface industry for many years, and today is a leading designer and supplier of digital typographic fonts.

The resident *GoScript* fonts are of the ultimate typographic quality.

Each font contains intelligent hints that allow *GoScript* to retain the correct typographic proportions after manipulations such as scaling, rotation, and special effects.

Each font is closely matched to the corresponding Apple LaserWriter PostScript font. The same set of characters is included in the font, and the appearance, shape, and width of each character is closely matched to the LaserWriter font. The fonts included with *GoScript* and *GoScript Plus* can be used by existing programs designed to utilize the LaserWriter fonts.

All fonts must be stored in the GOSCRIPT directory to be loaded and scaled on demand.

Each *GoScript* font is contained in a separate file. That file contains the outline description of the font in a format unique to *GoScript*. When a PostScript language file calls for a font, the corresponding font file is loaded into *GoScript's* virtual memory. Only one font file is present in font virtual memory at any time.

Font File Names

The names of the thirteen fonts included with *GoScript* and the names of the corresponding Apple LaserWriter fonts are as follows:

GoScript Font File Name	Corresponding Apple LaserWriter Font Name
F_3000.GSF	Times-Roman
F_3001.GSF	Times-Italic
F_3002.GSF	Times-Bold
F_3003.GSF	Times-BoldItalic
F_3004.GSF	Helvetica
F_3005.GSF	Helvetica-Oblique
F_3006.GSF	Helvetica-Bold
F_3007.GSF	Helvetica-BoldOblique
F_3008.GSF	Courier
F_3009.GSF	Courier-Oblique
F_3010.GSF	Courier-Bold
F_3011.GSF	Courier-BoldOblique
F_3012.GSF	Symbol

There are 22 additional fonts included with *GoScript Plus*:

GoScript Font File Name	Corresponding Apple LaserWriter Font Name
F_3013.GSF	AvantGarde-Book
F_3014.GSF	AvantGarde-BookOblique
F_3015.GSF	AvantGarde-Demi
F_3016.GSF	AvantGarde-DemiOblique
F_3017.GSF	Bookman-Light
F_3018.GSF	Bookman-LightItalic
F_3019.GSF	Bookman-Demi
F_3020.GSF	Bookman-DemiItalic
F_3021.GSF	Helvetica-Narrow
F_3022.GSF	Helvetica-Narrow-Oblique
F_3023.GSF	Helvetica-Narrow-Bold
F_3024.GSF	Helvetica-Narrow-BoldOblique
F_3025.GSF	NewCenturySchlbk-Roman
F_3026.GSF	NewCenturySchlbk-Italic
F_3027.GSF	NewCenturySchlbk-Bold
F_3028.GSF	NewCenturySchlbk-BoldItalic
F_3029.GSF	Palatino-Roman
F_3030.GSF	Palatino-Italic
F_3031.GSF	Palatino-Bold
F_3032.GSF	Palatino-BoldItalic
F_3033.GSF	ZapfChancery-MediumItalic
F_3034.GSF	ZapfDingbats

If a font is called for when the font file does not exist on the system, a default font is substituted. Courier is the default font when *GoScript* is initially installed.

You can make the default font any font you want by modifying the DEFAULTFONT parameter in GSCONFIG.CFG. Use a text editor or the ASCII mode of your word processor to add the exact font file name of the desired default font after

```
DEFAULTFONT =
```

Additional Fonts

You can purchase additional fonts for use with *GoScript* from LaserGo or from other manufacturers.

The GoFonts Library

Fonts from LaserGo's *GoFonts* typeface library are intelligent outline fonts that can be stored on your hard disk and loaded by *GoScript* on demand, just like the resident fonts included with your *GoScript* package.

The advantage of using *GoFonts* over other outline fonts is that *GoFonts* act as resident fonts in *GoScript*. Select *GoFonts* from your application program and print them with *GoScript* as easily as you do *GoScript's* regular fonts. There is no time lost in specifying numerous font files on the command line. *GoFonts'* font descriptions do not have to be stored in virtual memory, so you are less likely to run out of virtual memory. No additional memory boards or cartridges must be purchased for the printer.

Because *GoFonts* are designed for use with *GoScript*, installation and use with your application program is simple. Each *GoFonts* typeface package includes detailed instructions for installing *GoFonts* in *GoScript* and in several popular application programs.

GoScript now supports up to 256 resident *GoFonts* in the configuration file.

Call 1-800-955-FONT (in the U.S.) for the name of a dealer near you, the latest *GoFonts* catalog, or to request sample printouts.

Third Party Fonts

Fonts from the Bitstream Fontware typeface library can be used with *GoScript* as PostScript downloadable fonts. These Type III Bitstream fonts are available from Bitstream, Inc., and from many computer dealers specializing in desktop publishing systems.

The amount of available conventional system memory limits the number of third party fonts that you can print on a page, as each font must be loaded into virtual memory by *GoScript*.

This release of *GoScript* is NOT compatible with Adobe Systems, Inc. Type I downloadable fonts. These fonts use an encoding technique that is proprietary to Adobe. However, the *GoFonts* typeface library provides typefaces similar to Adobe downloadable fonts.

Other font suppliers may provide fonts that can be used with *GoScript*. To be compatible, a font must be a PostScript Type III outline font, and must not make use of Adobe's proprietary font encoding technique. Consult the font supplier for compatibility information, and request a test sample before purchasing any third party fonts.

Use of third party fonts with *GoScript* is simple:

1 Install the font on your hard disk and in your application according to the instructions provided with the font.

Make a note of the file name of the font file.

2 Create a document within your application program, specifying the new font.

3 Create a print file for the document and exit your application.

4 Change to the GOSCRIPT directory. Type:

```
GS  \path\fontfile.xxx  \path\printfile.PRN
```

and press ENTER. fontfile.xxx is the name of the font file called for in your document. The font file name must be listed before both the PostScript preamble file name (if any) and the print file name on the command line.

NOTE: Be sure to list a font file for every font called for in the document! Remember that bold, italic, bold italic, etc., variations are all separate fonts.

Reference Font Samples

GoScript Font File Name	Corresponding Apple LaserWriter Font Name

F_3000.GSF Times-Roman

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3001.GSF Times-Italic

abcdefghijklmnopqrstuvwxyz 1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3002.GSF Times-Bold

abcdefghijklmnopqrstuvwxyz 1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3003.GSF Times-BoldItalic

abcdefghijklmnopqrstuvwxyz 1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3004.GSF Helvetica

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3005.GSF Helvetica-Oblique

abcdefghijklmnopqrstuvwxyz 1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3006.GSF Helvetica-Bold

abcdefghijklmnopqrstuvwxyz 1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3007.GSF Helvetica-BoldOblique

abcdefghijklmnopqrstuvwxyz 1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3008.GSF Courier

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3009.GSF Courier-Oblique

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3010.GSF Courier-Bold

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3011.GSF Courier-BoldOblique

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3013.GSF AvantGarde-Book

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3014.GSF AvantGarde-BookOblique

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3015.GSF AvantGarde-Demi

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3016.GSF AvantGarde-DemiOblique

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow.
Aesop

F_3017.GSF Bookman-Light

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow.
Aesop

F_3018.GSF Bookman-LightItalic

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow.
Aesop

F_3019.GSF Bookman-Demi

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow.
Aesop

F_3020.GSF Bookman-DemiItalic

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3021.GSF Helvetica-Narrow

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3022.GSF Helvetica-Narrow-Oblique

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3023.GSF Helvetica-Narrow-Bold

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3024.GSF Helvetica-Narrow-BoldOblique

abcdefghijklmnopqrstuvwxyz 1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3025.GSF NewCenturySchlbk-Roman

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3026.GSF NewCenturySchlbk-Italic

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3027.GSF NewCenturySchlbk-Bold

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3028.GSF NewCenturySchlbk-BoldItalic

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3029.GSF Palatino-Roman

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3030.GSF Palatino-Italic

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3031.GSF Palatino-Bold

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

F_3032.GSF Palatino-BoldItalic

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

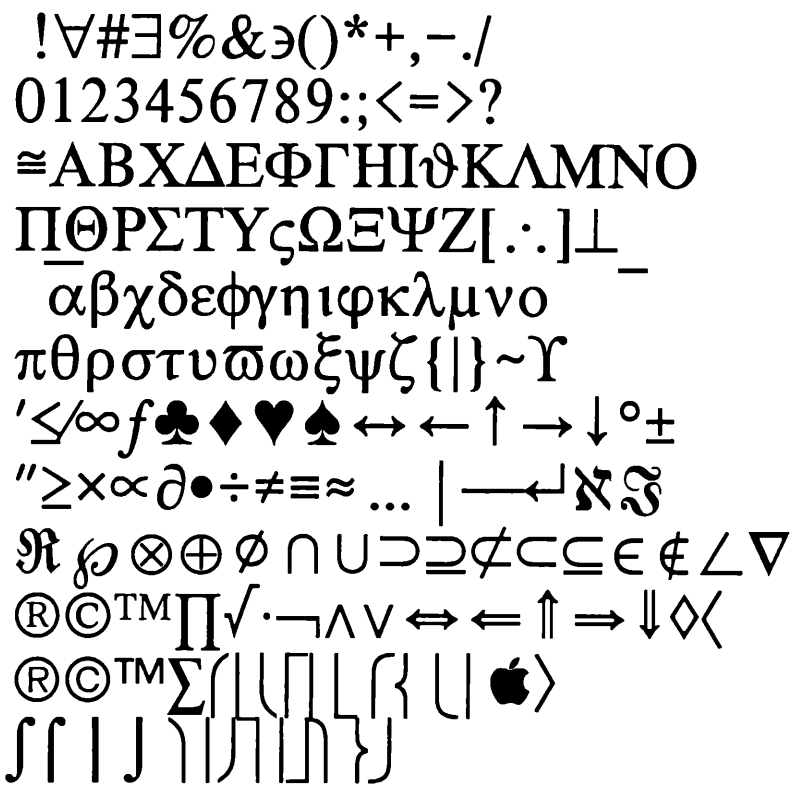
F_3033.GSF ZapfChancery-MediumItalic

abcdefghijklmnopqrstuvwxyz1234567890
ABCDEFGHIJKLMNOPQRSTUVWXYZ

Beware lest you lose the substance by grasping at the shadow. Aesop

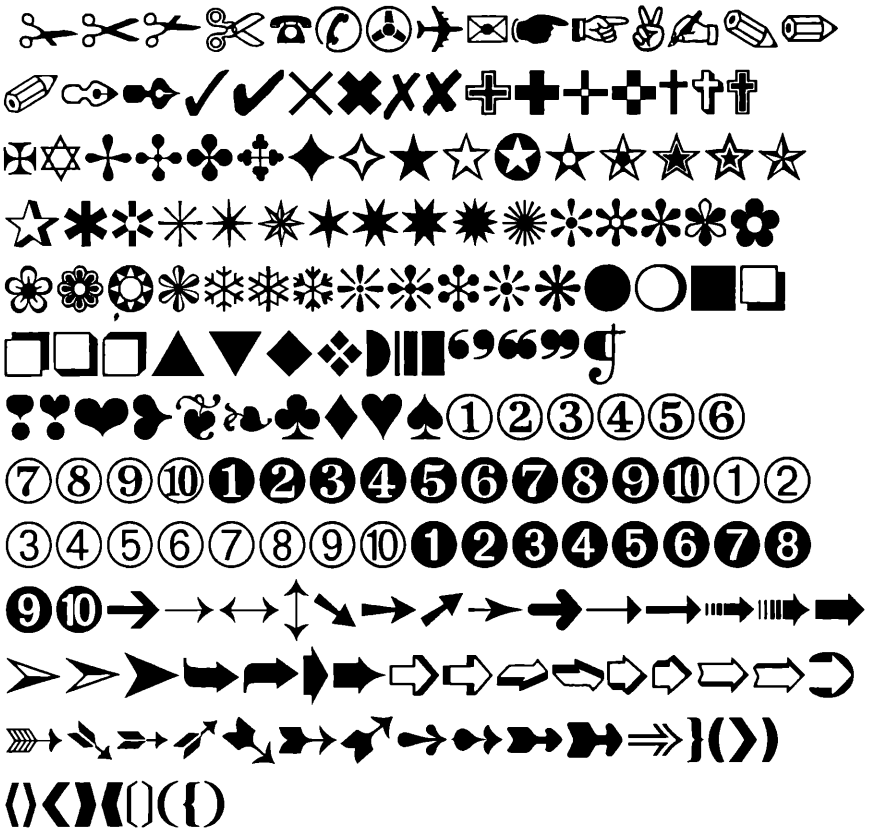
This is the complete character set of the *GoScript* Symbol font.

all characters: Symbol 24 point



This is the complete character set of the *GoScript* ZapfDingbats font.

all characters: ZapfDingbats 24 point



This is the complete character set of the *GoScript* text fonts.

all characters: NewCenturySchlbk-Roman 24 point

!"#$%&'()*+,-./
0123456789:;<=>?
@ABCDEFGHIJKLMNO
PQRSTUVWXYZ[\]^_
‘abcdefghijklmno
pqrstuvwxyz{|}~¡
¢£⁄¥ƒ§¤'“«‹›fifl–†
‡·¶•‚„”»…‰¿`´ˆ˜¯
˘˙¨˚¸˝˛ˇ—ÆªŁØŒºæ
ıłøœßÖÜîñûÃŸãžáõ
Ù÷ÒÌï−šþüâ¾ÐùìÉ
Þäåéµó³Á©ÊÕÇÝàê×
ÂŽô±Ë¦ëöÑ™²ýŠÄ®È
Íèðçò¼½ÚÎÓ°¬¼ÛÔÏ
íúÿÅ¹

13

Tips and Techniques

This chapter will show you how to solve some common problems that may occur during printing.

Also included are hints on how to maximize *GoScript's* performance on your system, and some advanced techniques for special printing processes.

Solving Some Common Problems

Follow the steps outlined in this section if you are having trouble running *GoScript*. These steps help you to determine that *GoScript* is configured properly, and that your system is operating correctly.

Checklist and Troubleshooting Procedure

As you go through these steps, make notes, so that if you do need to contact LaserGo technical support, you will be able to accurately describe your system and situation.

1 Visually check your printer. Is it turned on? Is it on-line? Is it firmly attached to your PC's parallel port?

2 From the DOS prompt, type:

CHKDSK

and press ENTER. The last line of the readout tells you how much system memory you have available. *GoScript* needs at least 550KB (550,000 bytes) to run. If you have less than 550KB free, you must disable some of the memory resident (TSR) programs running on your system.

NOTE: DOS 4.0 and 4.1 have several TSR programs, DOS shells, etc., which you may have to disable in order to be left with 550KB of system memory available. Refer to the DOS documentation, or contact the manufacturer for information on DOS's TSR programs.

3 Change to the GOSCRIPT directory. Type:

GS

and press ENTER to start up *GoScript* in interactive mode. A status message will appear. Verify that the following information is correct:

* Version of *GoScript*.

* Printer driver and resolution.

* Size of the bit map file initialized. This line will also indicate if expanded memory is recognized.

Type quit in lower case letters to return to DOS.

NOTE: If *GoScript* does not start up in interactive mode, try reinstalling *GoScript* from the original diskettes.

4 Print out the *GoScript* demo files to verify that *GoScript* is installed correctly. Demos included with *GoScript* are: DEMO.PS, DEMO1.PS, DEMO2.PS, DEMO3.PS, and DEMO4.PS. *GoScript Plus* also includes FONTDEMO.PS.

NOTE: If a font file is missing, damaged, or not correctly installed, *GoScript* will print that text in Courier.

5 Verify that your application program is configured for a PostScript printer (PostScript printer, Apple LaserWriter, or Apple LaserWriter Plus). Check that the print output is directed to a file, not a printer port.

6 Create a simple document using a variety of fonts. Print the document to a file and exit the application program.

NOTE: Do not confuse "saving the document" with "printing to a file." The document is what you see onscreen within your application. The print file is a description of your document in the PostScript language, which your application generates when you print to disk. *GoScript* understands only the PostScript language file.

7 Change to the GOSCRIPT directory. Print the PostScript language print file through *GoScript*.

If processing is unsuccessful, refer to Appendix A for explanations of the error message.

Common Questions About GoScript

When I run the INSTALL program, the screen is very difficult to read. Why?

The INSTALL program is probably generating color screens which cannot be represented on your monochrome display. Press the ESC key, then restart the INSTALL program by typing INSTALL MONO.

When I use GoScript to print my file, I get the message: File Not Found. Why?

GoScript cannot find the file you have indicated. Check to see if you have typed the file name correctly. If the file name has an extension, .PRN for example, you must include it.

If the file is not located in the current directory, you must tell *GoScript* where to find it. Be sure to specify the full path of the file, \WORD\filename.PRN for example.

When I save a publication as a print file from my application, then print it, I get a message that says: Preamble File Not Loaded. Why?

The preamble file contains information and definitions necessary for the PostScript language interpreter to print the following print file. You are printing from an application that provides the PostScript language preamble file separately from the print file.

Be sure to specify the preamble file before the print file on the *GoScript* command line. Refer to the chapter specific to your application in this Guide, or to your application's documentation on printing with PostScript.

When I try to print a PostScript language file created by my application program, I get the message: Out of Heap Memory. Why?

The temporary storage required to process the PostScript language print file is larger than your available memory. *GoScript* requires at least 550KB of conventional memory to run. Try disabling some of your memory resident (TSR) programs.

You can try gradually decreasing VMSIZE in GSCONFIG.CFG. The default VMSIZE is 130KB. Remember that VMSIZE must be 150KB for Microsoft Word files.

If you still have problems running *GoScript*, set the FILES and BUFFERS parameters in your CONFIG.SYS file to minimum values (20 each).

Why can't I run GoScript under Windows or within my application program? I have plenty of expanded memory.

GoScript requires 550KB of conventional system memory to run. Your system comes with 640KB. DOS uses 40KB to 60KB; device drivers and the FILES and BUFFERS operations also take up space. Only about 580KB is left for running programs.

Usually there is no room for *GoScript* to run with another application. Exceptions are Windows/386 and DESQview/386, which themselves can run in extended memory while leaving enough conventional memory for *GoScript*.

GoScript can use expanded memory for operations that normally are done on the hard disk, but cannot run in expanded memory. See the subsection on expanded memory in this chapter for more information.

I have formatted some text in a particular font in my application program, but GoScript prints it in the Courier font. Why?

You may have selected a font that is not included with *GoScript*. Check the list of *GoScript* and *GoScript Plus* fonts in Chapter 12.

You may not have specified the font correctly within the application. Most applications require you to highlight all the text you wish to format, and then select the font. Check your application's documentation for instructions.

The font you have selected may be missing, damaged, or incorrectly installed on your system. Print out the *GoScript* demo files and check them against the samples in Appendix D of this Guide.

I am having trouble using the print-to-disk option and the bit map save option. What could I be doing wrong?

Both of these options require a large amount of space on the hard disk. The files generated are 1MB in size for a letter-size page at 300 dpi, and more for higher resolutions, or larger pages. Check to see that your hard disk has enough space for *GoScript* to set up these files.

Make sure that you are specifying the option first and the print file name last on the command line. Refer to Chapter 4 for instructions.

Why do I keep getting a blank page ejected between every printed page?

If you are using *GoScript* on a printer with a single sheet feeder or in manual feed mode, and are experiencing double page eject, use a text editor or the ASCII mode of your word processor to change the FORMFEED = YES parameter in GSCONFIG.CFG to NO. Also make sure that there are no unintended page breaks in the document file!

Accessing Fonts

If your application does not allow you to access all 13 *GoScript* fonts, check to see that the application is configured for an Apple LaserWriter, or for a PostScript printer. Check your application's documentation to see if the application is capable of supporting them.

If you have *GoScript Plus* and your application does not allow you to see all 35 *GoScript Plus* fonts, check to see that the application is configured for an Apple LaserWriter Plus or a PostScript printer. Check your application's documentation to see if the application is capable of supporting them.

If you are using *GoFonts*, refer to the *GoFonts Guide.*

Hard Disk Space

Your hard disk may become too full to run *GoScript* if you reset the system too often during *GoScript* processing.

As *GoScript* processes files, it creates temporary files with the extension .TMP on the hard disk. Normally, these temporary files are deleted when processing is complete; however, if the system is reset during processing, the temporary files may not be deleted.

If this occurs, type at the DOS prompt:

```
CHKDSK /F
```

If DOS finds any files not properly closed, you will be prompted:

```
xxx lost clusters found in x chains
Convert lost chains to files (Y/N)?
```

Enter Y for Yes, then at the DOS prompt, type:

```
DEL \*.CHK
```

to delete the temporary files generated and reclaim all the hard disk space taken up by *GoScript's* old temporary files.

Refer to the *GoScript* configuration file GSCONFIG.CFG for the directory in which *GoScript's* temporary files are stored. Delete any files with the extension .TMP.

Enhancing Printing Speed

Due to the complexity of the computations required to generate printed output from PostScript language print files, printing with *GoScript* is somewhat slower than printing directly in the printer's native text mode.

There are several ways to maximize *GoScript's* performance. Experiment with the following software and hardware options.

Print-to-Disk Option

This option allows you to save *GoScript's* output to a file. To print the resulting file, simply copy the file to the printer port. No further processing must be done by *GoScript*. Refer to Chapter 4 for detailed instructions.

Use the print-to-disk option to print a complex file more than once. Complex files require long processing times. Saving *GoScript's* output to a file allows you to send the output file directly to the printer using the DOS copy command without further time spent processing.

Use the print-to-disk option to process a PostScript language file, copy the print file to a diskette, and then print the file on another system.

Multiple Files Option

You can specify more than one PostScript language print file on the *GoScript* command line. This saves some time because *GoScript*, the fonts, and the preamble files are loaded only once. Refer to Chapter 4 for detailed instructions.

Use the print multiple files option to print more than one PostScript language file at a time.

NOTE: Occasionally the environment from one file can be inherited by the next file, and subsequent files are printed incorrectly. In this case, process one file at a time.

Multiple Copies Option

The multiple copies option allows you to print from 1 to 99 copies of a print file, processing it only once. Refer to Chapter 4 for detailed instructions.

Use the print multiple copies option to print several copies of the same file.

Virtual Memory Image File Option

This option allows you to process your application's PostScript language preamble file and save the resulting *GoScript* virtual memory file for use later. You can recall the virtual memory image file when you want to print any other PostScript language file generated by that application, and save the time it takes *GoScript* to process the preamble file. Refer to Chapter 4 for detailed instructions.

Use the virtual memory image file option only if your application has a separate preamble file that must be processed by *GoScript* before the unique print file itself.

Numeric Coprocessors

GoScript performs floating point calculations twice as fast with a coprocessor as without one. You will notice no improvement in performance with text files, some improvement with graphics files, and significant improvement with files containing scanned images.

The calculations required to generate characters from outline fonts, graphics, and gray scales, and to process halftone images are usually performed in software. These calculations can be performed much faster in hardware, if your system has a numeric coprocessor. Almost all IBM PC compatible computers can accept an optional numeric coprocessor. The coprocessor plugs into an empty socket on your computer's motherboard.

Your system's CPU determines which coprocessor is required:

CPU	Coprocessor
8088	8087
8086	8087
80286	80287
80386	80387 (sometimes 80287)

After installing a numeric coprocessor, you may need to set a switch on your system board or run a setup program before *GoScript* will recognize the coprocessor. If a coprocessor is recognized in your system configuration, *GoScript* will automatically utilize it. To temporarily deactivate the coprocessor, enter the following command at the DOS prompt:

```
SET 87=N
```

and floating point calculations will be done in software.

To re-enable the coprocessor, enter the following command at the DOS prompt:

```
SET 87=Y
```

Expanded Memory

When you print a PostScript language file through *GoScript*, a two-step process takes place.

GoScript reads the print file, processes the PostScript language commands, and generates a raster image of the page at the resolution of your printer. The size of the raster image file ranges from 200KB for a low resolution dot matrix printer, to 1MB for a letter-size page on a 300 dpi laser printer.

When the raster image of the page is complete, *GoScript* sends the file to your printer in graphics mode.

The raster image file must be stored in your PC during processing. Normally it is stored on your hard disk as a temporary file that *GoScript* deletes after printing. However, if enough expanded memory is available on your system, *GoScript* will build and store the raster image of the page in expanded memory. Using expanded memory instead of the hard disk results in a very significant improvement in performance. You may notice processing speeds 2 to 4 times faster than without EMS.

NOTE: *GoScript* can use expanded memory only to build and store the raster image of the page. *GoScript* requires at least 550KB of conventional memory and cannot run in expanded memory.

Expanded memory must be fully compatible with the Lotus-Intel-Microsoft Expanded Memory Specification version 3.20 or later for *GoScript* to recognize it.

The Expanded Memory Manager provided by the memory board manufacturer must be installed (usually by adding a line to your CONFIG.SYS file) before running *GoScript*. Refer to the memory board documentation for more information.

You must change the EMS field in *GoScript's* GSCONFIG.CFG file to indicate YES for *GoScript* to utilize your expanded memory. *GoScript* will check for expanded memory in your system configuration and will utilize expanded memory unless you have specified NO in the EMS field of GSCONFIG.CFG. When printing is complete, *GoScript* will release expanded memory for use by your application programs.

Using Extended Memory

This version of *GoScript* supports extended memory with the XMS 2.0 extended memory driver.

To use your extended memory and XMS 2.0 driver with *GoScript*, specify YES in the XMS field of GSCONFIG.CFG, the *GoScript* configuration file. Refer to Appendix B for detailed instructions.

If your extended memory comes with another driver, performance of *GoScript* can be improved by configuring your extended memory to Lotus-Intel-Microsoft expanded memory or by using the extended memory as a RAM disk for *GoScript's* font cache and temporary files. Refer to your current DOS manual for information on virtual disks or RAM virtual disks.

In order for *GoScript* to work effectively with a RAM disk, the following conditions must be met:

- The TEMP and FONTCACHE fields in the *GoScript* configuration file, GSCONFIG.CFG, must indicate the RAM disk drive letter.

- The RAM disk capacity must be large enough to accommodate the page bit map file and several saved virtual memory files. The size of the page bit map file is displayed in the *GoScript* sign-on message, and ranges from 200KB for low resolution dot matrix printers to 1.25MB for high resolution laser printers. The size of the saved virtual memory file ranges from 80KB to several hundred KB.

A

Error Messages

This chapter provides explanations and possible troubleshooting procedures for error messages that may occur during *GoScript* processing.

There are two types of error messages generated by *GoScript:* system error messages and interpreter error messages.

System error messages indicate that a condition exists within your system or in DOS that prevents the program from continuing. A system error is always fatal, and returns you to the DOS prompt.

Interpreter error messages indicate a difficulty encountered by the PostScript language interpreter.

Cannot find configuration file

GoScript searches for the GSCONFIG.CFG configuration file. It first searches the directory named in the GS environment variable in AUTOEXEC.BAT. If the environment variable has not been set, it then searches the current directory. If the file is not found, this error message occurs.

Check that the GS environment variable has been set. When you use the SET command provided by DOS, make sure there are no spaces after the variable name; if there are, the program will not recognize the environment variable. Refer to Chapter 2.

Invalid option in configuration file

The configuration file contains invalid data. This happens only if the GSCONFIG.CFG file has been inadvertently damaged, or incorrectly modified.

Edit GSCONFIG.CFG to correct the problem or reinstall *GoScript* from the distribution diskettes.

Invalid option in command line

An invalid option was specified on the command line when *GoScript* was invoked, or the value specified for an option was out of range.

Enter the command line correctly and run *GoScript* again. Refer to Chapter 4 for detailed description of program options.

Cannot create file filename
Cannot open file filename
Cannot read file filename
Cannot write file filename

An error was reported by DOS when *GoScript* tried to access the file called filename.

If the file is a print file that was specified on the command line, check that the file name is correct; if the file is not located in the current directory, you must specify the path name.

If the file is one used internally by *GoScript*, be sure that it is located in the directory into which the program was installed, and that the GS environment variable has been set to the name of the directory. Refer to Chapter 2.

Disk is full. Cannot write file filename.

Your hard disk does not contain the available space necessary to open the file called filename.

Delete or move to floppy disk some of the files stored on your hard disk and run *GoScript* again.

Out of heap memory
Out of font cache memory
Out of virtual memory

GoScript has insufficient memory to continue. *GoScript* requires a minimum of 550KB available to run properly.

Heap memory is reserved for temporary working storage. Font cache memory is used for saving character bit map images. Virtual memory is reserved for PostScript dictionaries and functions or is allocated for the resident fonts.

First, make more system memory available in order to avoid these errors. Try removing all resident utilities, RAM disks, and unnecessary device drivers, as well as reducing the number of disk buffers used by DOS. View your system's memory allocations with the DOS CHKDSK command.

If the virtual memory is still insufficient, increase the amount of allocated virtual memory in small increments, with the VM field in the *GoScript* configuration file GSCONFIG.CFG.

If the heap memory is still insufficient, increase the heap memory by decreasing the virtual memory size specified in the GSCONFIG.CFG file. Heap memory and virtual memory are allocated by *GoScript* from a common memory pool. Virtual memory size must be at least 50KB.

If a maximum amount of DOS memory is made available to *GoScript* and the error persists, the file may be too complex to be printed by *GoScript*.

Error in driver initialization

The line in the *GoScript* configuration file GSCONFIG.CFG that begins with DRIVER= is invalid, due to improper syntax or an invalid driver parameter.

Correct the printer driver parameter specification, DRIVER = filename.DRV in the GSCONFIG.CFG file. Be sure to use the exact printer driver filename and extension.

Expanded memory required

The printer driver selected requires expanded memory to function.

Currently, only the GoCard and Intel Visual Edge System require expanded memory; other drivers use expanded memory if present, but revert to a disk file if necessary.

Expanded memory manager error

An error was reported by your expanded memory manager. Your expanded memory board could be malfunctioning, or your expanded memory board or expanded memory manager software may not be fully compatible with the LIM EMS standard.

Run the memory test program provided with your expanded memory board.

Interpreter Error Messages

The following interpreter errors may occur:

Access is invalid
Bad operand type
Bad syntax
Current point not defined
Dictionary is full
Dictionary stack is empty
Dictionary stack is full
Exceeds interpreter limits
Execution stack is full
Exit is invalid
File access is invalid
File not found
File system error
Floating point error
Font is invalid
Internal malfunction
Interrupt signaled
Job timeout
Name is not defined
No mark
Numeric value out of range
Out of range
Restore is invalid
Stack is empty
Stack is full

Interpreter errors generally occur in the following situations:

1. When the limits of the interpreter are exceeded, *GoScript* is unable to print the file because the program is too big to fit in the available memory. In this case, maximizing the available memory (refer to the Out of Heap Memory section a few pages earlier) or reducing the complexity of the text and graphics in the file enables printing.

2. When the input file contains invalid data, it will not print. This is most likely to occur if you tried to process a document file instead of a print file, or created the PostScript program yourself, rather than if you generated it with an application program. The error message indicates an element of your PostScript program that is near the place where the error occurred in the input file.

3. When the print file has not been preceded by a PostScript language preamble file as required, the definitions *GoScript* needs have not been provided. Some applications provide a separate preamble file which must be run through the PostScript language interpreter before the print file. Refer to the chapter specific to your application, or to your application's documentation on PostScript printing.

4. When your math coprocessor speed is not compatible with the speed of your CPU, or when your turbo switch is on, *GoScript* may return a floating point error. Try rebooting with the math coprocessor or turbo switch disabled.

If you are printing from a list of files specified from the DOS command line, the error is fatal; you are returned to the DOS prompt.

If you are in interactive mode, you are returned to the *GoScript* prompt. The interpreter state is preserved and the stack normally contains the invalid data that caused the error to occur. You can recover from the error manually. Refer to the PostScript language books listed in the Further Reading section of Chapter 1.

Notes:

B

Technical Information

This appendix provides information about the operation of *GoScript*, including details of memory and operating parameters in the *GoScript* configuration file, GSCONFIG.CFG

Program Organization

GoScript is an off-line PostScript language printing utility. It processes files containing PostScript language page descriptions and sends the processed output to an output device or file. *GoScript* output is a raster image of a page, generated at the highest graphics resolution supported by your printer.

Because of the large memory requirements for interpreting the PostScript language, *GoScript* is not organized as a DOS device driver.

Startup

When *GoScript* begins its execution, it searches for the configuration file, GSCONFIG.CFG. The directory named in the GS environment variable in AUTOEXEC.BAT is searched first. If the environment variable has not been set, it then searches the current directory. The configuration file determines the location of the other files *GoScript* needs to find.

When one or more file names have been specified on the command line, *GoScript* opens and processes each file in order. When the last file has been processed, *GoScript* exits to DOS.

If no file name is given on the command line, *GoScript* goes through its initialization process and enters interactive mode. In interactive mode, enter PostScript language commands and receive feedback directly from the interpreter. When the interpreter is ready for input, it issues the prompt:

```
GS>
```

To exit the interactive mode, type:

```
quit
```

and press ENTER.

NOTE: Remember, PostScript is case sensitive, so be sure to type commands exactly as shown. *GoScript* in interactive mode expects to receive only PostScript language commands.

Fixed Disk Usage

GoScript creates two types of temporary files on the hard disk.

{GSVM0x}.TMP: A virtual memory file is created when *GoScript* encounters the PostScript language save operator. These files are named starting with {GSVM01}.TMP. The number is incremented by one for each level of save nesting. The size of each file may range from 32KB to several hundred KB. The corresponding virtual memory file is deleted when *GoScript* encounters the PostScript language restore operator.

{GSPAGE}.TMP: If your system has enough expanded or extended memory available, it will be used to hold the raster image of the page during processing. If there is not sufficient expanded or extended memory to hold the image, *GoScript* will open a temporary file named {GSPAGE}.TMP on the hard disk. The size of this file will vary from 200KB for a low resolution page for a dot matrix printer, to 1MB for a 300 dpi letter-size page. Higher resolutions and larger pages require more space.

Memory Usage

GoScript requires memory for the following:

Code segment
Static data segment
Dynamic data segment (heap)
PostScript virtual memory
Font virtual memory
Font cache

In addition, *GoScript* utilizes expanded memory, if available, to hold the raster image of the page.

The amount of virtual memory can be specified in GSCONFIG.CFG. The size of other areas of memory is fixed by *GoScript*.

For maximum performance, *GoScript* needs as much system memory as possible. Avoid loading resident utilities, unnecessary device drivers, etc. when using *GoScript*.

The Configuration File

The operating parameters required by *GoScript* are contained in the file GSCONFIG.CFG. This file is in the directory named in the SET GS = environment variable.

Although the parameters in GSCONFIG.CFG are set correctly for your system during installation, you may want to modify the default configuration. To modify GSCONFIG.CFG, use the GSCONFIG.EXE program, a text editor, or the ASCII mode of your word processor. Refer to Chapter 3 for detailed instructions.

Here is a typical configuration file. This example assumes that you used the defaults supplied by the INSTALL and GSCONFIG programs, and that you selected a HP LaserJet Series II printer:

```
VMSIZE = 130
DEFAULTFONT = F_3008.GSF
FONTCACHE = C:\GS.CHE
TEMP = C:\GOSCRIPT
EMS = YES
XMS = NO
PAPERSIZE = LETTER
MANUALFEED = NO
DRIVER = LJII.DRV
PSPREAMBLE = NONE
LPTDEVICE = 1
```

Any mixture of upper and lower case is allowed in the configuration file.

Any line in the configuration file that begins with a semicolon (;) is treated as a comment and ignored, for example:

```
;THIS IS A COMMENT LINE
```

Two other parameters, DISPLAY and AUTOEXEC, may be added to your GSCONFIG.CFG file with a text editor or the ASCII mode of your word processor, if you care to use them. These parameters do not occur in the default configuration.

The parameters are described below:

VMSIZE

Default: 130KB

Specifies the amount of memory, in KB, allocated to virtual memory,the storage area for PostScript variables, dictionaries and functions. In this release of *GoScript*, the PostScript virtual memory must reside entirely within DOS conventional memory (the first 640KB).

DEFAULTFONT

Default: F_3008.GSF Courier

Specifies the *GoScript* default font file name which is automatically substituted for any unsupported fonts. If no font is specified, Courier font file F_3008.GSF is the default font.

FONTFILE

Default: this parameter does not exist in the original GSCONFIG.CFG file. It must be added in if additional fonts are added.

Specifies the filename(s) of additional *GoScript* resident fonts supplied from the LaserGo *GoFonts* typeface library. Each font file must have its own FONTFILE = statement line. The *GoFonts* install program, GFINSTAL, will add these lines automatically.

FONTCACHE

Default: C:\GS.CHE

Specifies the full path and file name of the font cache file. If omitted, the font cache cannot be saved with the /S option or restored with the /R option.

TEMP

Default: C:\

Specifies the directory in which all temporary files created by *GoScript* are stored. If the system is restarted or power is lost during processing, temporary files may not be automatically deleted. You may delete them manually.

If you have a RAM disk, you can change the TEMP parameter to place the temporary files on the RAM disk and increase the speed of the program. Be sure there is enough disk space available for the temporary files.

If the TEMP parameter is not specified in the configuration file, then temporary files created by the program will be located in the directory named in the GS environment variable, or in the current directory.

EMS

Default: NO

Set to YES, allows expanded memory to be utilized if it is available. When EMS is set to NO, expanded memory will not be utilized by the program.

XMS

Default: NO

Specifies to *GoScript* that you are using extended memory. Refer to the extended memory board's documentation or a DOS manual for details of using the XMS 2.0 driver on your system. This option requires that your extended memory is driven by an XMS 2.0 driver. An example is the file HIMEM.SYS, available from Microsoft.

Set to YES, allows extended memory to be utilized if it is available. When XMS is set to NO, extended memory will not be utilized by the program.

If you are not using extended memory and an XMS 2.0 driver, your configuration should read XMS = NO.

PAPERSIZE

Default: LETTER

Specifies the paper size to be used, and therefore the default printable area. Possible values are LETTER, LEGAL, A4, and CUSTOM. CUSTOM generally indicates 11" x 17" paper size, and is supported in only a few printer drivers (see Appendix C for details).

MANUALFEED

Default: NO

Specifies whether manual, YES, or automatic, NO, paper feed is to be used.

DRIVER

Default: LJII.DRV (LaserJet Series II)

Specifies the file name of the output device driver file and optional driver parameters. Refer to Appendix C.

PSPREAMBLE

Default: NONE

Specifies the path and file name of a preamble file. *GoScript* automatically loads this preamble file each time you print.

NOTE: Use this option only if the PostScript language files you print are all from the specified preamble's application.

LPTDEVICE

Default: LPT1

Specifies the port connected to your printer. Possible values are 1, 2, and 3.

If your printer is attached to your computer by a serial port (RS-232C), use the DOS MODE command to redirect one of the parallel port device names to your serial port. Then set the LPTDEVICE parameter to the number of the redirected parallel port. Serial port data transfer is slow, however, and should generally be avoided.

DISPLAY

Default: This parameter does not occur in the default GSCONFIG.CFG file. It must be added if you wish to use it.

Designates a screen driver, in addition to the primary output device driver file name specified in the DRIVER field, which can be called up for the current print job by using the /W option on the command line.

To specify a screen driver in the DISPLAY field of your configuration file, add one of the following lines anywhere in GSCONFIG.CFG:

```
DISPLAY = EGA.DRV
```

```
DISPLAY = VGA.DRV
```

To direct *GoScript* output to the screen instead of to the printer for the current print job, use the /W command line option:

```
GS /W filename.PRN
```

You will see *GoScript* assemble your page onscreen.

Requires EGA or VGA monitor and graphics card!

AUTOEXEC

Default: This parameter does not occur in the default GSCONFIG.CFG file. It must be added if you wish to use it.

Allows you to specify a default path and PostScript language print file that will print every time *GoScript* is invoked.

When *GoScript* is invoked, it checks to see if an AUTOEXEC line appears in GSCONFIG.CFG. If not, or if NONE is specified in the field, *GoScript* processes any file listed on the command line or goes into interactive mode.

If a file name occupies the AUTOEXEC field, *GoScript* will process and print it, preceded by the PostScript language preamble file if one is specified in the PSPREAMBLE field.

To use this parameter, use a text editor or the ASCII mode of your word processor to add a line similar to this anywhere in the GSCONFIG.CFG file:

```
AUTOEXEC = filename.PRN
```

Use the AUTOEXEC parameter if, for example, you have modified the Windows WIN.INI file to produce PostScript language print files which are always called OUTPUT.PRN.

If using this option requires you to reconfigure GSCONFIG.CFG often, it will not be worthwhile for you to use the AUTOEXEC feature.

C

Printers and Output Devices

Because the PostScript language is device independent, a single PostScript language file can be processed and printed to output devices with differing resolutions and imaging technologies.

GoScript uses loadable device drivers to support the capabilities of a wide range of output devices. Output device drivers are contained in files with the extension .DRV.

This appendix provides details of specific printer drivers and other output device drivers.

Changing Output Device Drivers

The output device driver specification in the GSCONFIG.CFG file can be changed at any time with the GSCONFIG.EXE program, a text editor, or the ASCII mode of your word processor.

The output device driver specification can be temporarily changed for the current print job with the /Pdriver.DRV program option on the *GoScript* command line. For example,

```
GS /Pdriver.DRV filename.PRN
```

This option temporarily overrides the printer driver selected in GSCONFIG.CFG.

Output Device Driver Files

Refer to the README file for any additional drivers included since publication of this Guide.

File Name	Printer
LJII.DRV	HP LaserJet Series II and Plus, emulations, Kyocera F-Series, Siemens PT 10, Intel Visual Edge System
LJIID.DRV	HP LaserJet IID
LJIIP.DRV	HP LaserJet IIP
LJIII.DRV	HP LaserJet Series III
DESKJET.DRV	HP DeskJet, DeskJet Plus
PAINTJET.DRV	HP PaintJet
PJXL.DRV	HP PaintJet XL
LBP-8II.DRV	Canon LBP-8II, LBP-8III, LBP-8A1/8A2
LBP-4.DRV	Canon LBP-4
CANBJ130.DRV	Canon Bubble Jet BJ-130, BJ-130e
EPSONFX.DRV	Epson FX Series 9-pin
EPSONLQ.DRV	Epson LQ Series 24-pin
EPSONLQ5.DRV	New Epson LQ driver for LQ-950, LQ-2550, at 360 dpi
NEC24.DRV	NEC Pinwriter Series 24-pin
TOSH24.DRV	Toshiba 24-pin dot-matrix
IBMLASER.DRV	IBM LaserPrinter
PROPRINT.DRV	IBM ProPrinter 9-pin
IBMQUICK.DRV	IBM Quickwriter
IBMQUIET.DRV	IBM Quietwriter III

File Name	Printer
FUJITDL.DRV	Fujitsu DL Series 24-pin
PANAKX24.DRV	Panasonic KX 24-pin
PT90.DRV	Siemens PT 90
OKI321.DRV	Okidata ML 321
XRX4045.DRV	Xerox 4045

File Name	Output Device
GOCARDSX.DRV	LaserGo GoCard, SX printers
GOCARDCX.DRV	LaserGo GoCard, CX printers
INSETPCL.DRV	Fax modem output for HiJaak software - Inset Systems
LJII.DRV	Intel Visual Edge System
JLASER5.DRV	Tall Tree JLaser 5
EGA.DRV	Screen output to EGA monitors
VGA.DRV	Screen output to VGA monitors
TIFF.DRV	File output in TIFF format
PCX.DRV	File output in PCX format

Optional Parameters

Some output device drivers support optional parameters. Refer to the section in this appendix specific to your output device.

The printer resolution options, /H for high resolution, and /L for low resolution, may be entered on the command line or directly into the GSCONFIG.CFG file with a text editor. When these options are specified on the command line, they temporarily override the configuration file.

If you are using the HP PaintJet or PaintJet XL, you may also specify a color option on the command line or in GSCONFIG.CFG. Refer to the section on the PaintJet later in this chapter.

Specify optional output device parameters in GSCONFIG.CFG by entering the option on the DRIVER = line as follows:

```
DRIVER = printer.DRV /H
```

Options are specified with a forward slash. Separate multiple compatible options with a space or a tab.

If an option is specified incorrectly, the error message Error in Driver Configuration will be displayed.

Supported Printers

GoScript supports the most widely used dot matrix, ink jet, and laser printers.

If your printer is not listed in this Guide or in the README file, it may be compatible with one of the supported printers. Compatibility can be provided by default, with a DIP switch, or with an optional emulation cartridge or ROM set from the manufacturer. Refer to the printer documentation, or contact the dealer or manufacturer for further information.

HP LaserJet Series II

Use the LaserJet Series II driver LJII.DRV with the HP LaserJet Series II, LaserJet Plus, Kyocera F-Series printers, Siemens PT 10, Intel Visual Edge System, and LaserJet emulations.

Default resolution: 300 dpi. Also supports 150 dpi draft mode printing with the /L option. Draft mode printing is faster and does not require memory expansion in the printer, but produces lower resolution output.

> NOTE: Laser printers must have at least 1MB of memory to print a letter-size page at 300 dpi. Legal and A4 size pages require 1.25MB of available memory in the printer. If a page exceeds the printer's memory, part of the page may be lost in transmission, and an error message may be displayed.

Supports printing on Letter, Legal and A4 size paper.

Supports manual paper feed when selected from the printer's front panel. The printer must be equipped with the paper tray corresponding to the paper size selected in GSCONFIG.CFG, even if manual feed is used.

Multiple copies are printed at a rate of 8 pages per minute on a LaserJet Series II.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many other PostScript printers due to internal limitations of the printer.

HP LaserJet IID

Use the LaserJet IID driver LJIID.DRV with the HP LaserJet IID.

Specifications are similar to those of the LaserJet Series II above, except that duplex printing is supported with the LJIID.DRV driver.

HP LaserJet IIP

Use the LaserJet IIP driver LJIIP.DRV with the HP LaserJet IIP ONLY. The LJIIP.DRV takes advantage of the printer's data compression capabilities.

Specifications are similar to those of the LaserJet Series II above, except that multiple copy printing speed is 4 pages per minute.

HP LaserJet Series III

Use the LaserJet Series III driver LJIII.DRV with the HP LaserJet Series III printer.

Default resolution: 300 dpi.

NOTE: This printer must have at least 1.5MB of memory to print a complete letter-size page at 300 dpi. The printer comes standard with 1MB of memory and can produce a full page printout with *GoScript* most of the time; however, a complex page which covers the entire printable area will require 1.5MB of memory to print correctly.

Also supports 150 dpi draft mode printing with the /L option. Draft mode printing is faster and does not require memory expansion in the printer, but produces lower resolution output.

This driver supports the LaserJet III new delta row compression method to reduce bit map image data and improve transfer time.

The print quality of text, especially in italic faces and thin script faces, can be improved with the Resolution Enhancement mode of the printer. This option may be set from the LaserJet III front panel switches. Please consult your LaserJet III User's Manual for a description of this feature.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many PostScript printers due to the printer's internal printable margins. Other features and limitations are similar to the LaserJet Series II.

HP DeskJet and DeskJet Plus

Use the HP DeskJet driver DESKJET.DRV with the HP DeskJet and DeskJet Plus printers. Although the same driver is used for both, the DeskJet Plus will print much faster than the original DeskJet.

Default resolution: 300 dpi. Supports 150 dpi draft mode printing with the /L option. Draft mode printing is faster, but output quality is significantly reduced. No printer memory expansion is needed for high resolution printing.

Supports Letter, Legal, and A4 size paper. Supports manual feed when the paper supply is removed from the input tray; insert each sheet of paper as needed and press the ONLINE button on the printer's control panel.

The paper size switches must be set to match the paper size selected in the GSCONFIG.CFG file. See description inside the printer's top cover.

Supports printing of multiple copies of a page; since each page must be sent to the printer individually, speed is limited.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many other PostScript printers due to internal limitations of the printer.

HP PaintJet and PaintJet XL

Use the PaintJet driver PAINTJET.DRV with the HP PaintJet, and the PaintJet XL driver PJXL.DRV with the HP PaintJet XL.

Default resolution: 180 dpi.

Default color: Black (/K). Supports single color printing. One of seven primary colors may be selected via the optional driver parameter in the GSCONFIG.CFG file.

Optional color parameters:

/R for red, /G for green, /B for blue, /Y for yellow, /C for cyan, /M for magenta

The default color will print if no parameter is specified.

Supports Letter, Legal, and A4 size paper. Supports continuous feed paper. Supports manual paper feed when selected during installation. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Supports printing of multiple copies of a page; speed is limited, since each page must be sent to the printer individually.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many other PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

Canon Laser Printers

Use the Canon LBP-8II driver LBP-8II.DRV with the Canon LBP-8II, LBP-8III, and LBP-8A1/8A2 printers. Use the Canon LBP-4 driver LBP-4.DRV with the Canon LBP-4 printer.

Default resolution: 300 dpi. Supports 150 dpi draft mode printing with the /L option. Draft mode printing is faster and does not require memory expansion in the printer, but produces reduced quality output.

> NOTE: Laser printers must have at least 1MB of memory to print a letter-size page at 300 dpi. Legal and A4 size pages require 1.25 MB of available memory in the printer. If a page exceeds the printer's memory, part of the page may be lost in transmission, and an error message may be displayed.

The printer must be in ISO command mode before using *GoScript*. Do this from the printer's front panel, then save the settings to the printer's permanent EEPROM storage. If the printer is in Diablo emulation mode, output will be incorrect. Refer to the printer's documentation for instructions.

Supports Letter, Legal, and A4 size paper. Supports manual paper feed when selected from the printer's front panel.

The printer must be equipped with the paper tray corresponding to the paper size selected in the GSCONFIG.CFG file, even if manual paper feed is used.

Supports printing of multiple copies of a page at a rate of 8 pages per minute on the LBP-8II.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many other PostScript printers due to internal limitations of the printer.

Canon BubbleJet BJ-130 and BJ-130e

Use the Canon BJ-130 driver CANBJ130.DRV with the Canon BubbleJet BJ-130 and BJ-130e printers.

Default resolution: 180 dpi. Supports 360 dpi printing with the /H option. This increases resolution at the expense of printing speed.

Supports Letter and A4 size paper. Supports B size paper (11" x 17" paper size) when CUSTOM paper size is selected in GSCONFIG.CFG.

Supports continuous feed paper. Supports the built in sheet feeder when it is activated.

Supports manual paper feed when selected during the installation process. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Supports printing of multiple copies of a page; speed is limited, since each page must be sent to the printer individually.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many other PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

IBM LaserPrinter

Use the IBM LaserPrinter driver IBMLASER.DRV with the IBM LaserPrinter.

Default resolution: 300 dpi. Supports 150 dpi draft mode printing with the /L option. Draft mode printing is faster and does not require memory expansion in the printer, but quality of output is reduced.

NOTE: Laser printers must have at least 1MB of memory to print a letter-size page at 300 dpi. Legal and A4 size pages require 1.25MB of available memory in the printer. If a page exceeds the printer's memory, part of the page may be lost in transmission, and an error message may be displayed.

Supports Letter, Legal and A4 size paper.

Supports printing of multiple copies at 10 pages per minute.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many other PostScript printers, due to the required margins of the LaserPrinter.

IBM ProPrinter

Use the IBM ProPrinter driver PROPRINT.DRV with 9-pin IBM ProPrinter models, and printers that emulate the 9-pin ProPrinter. If you have a ProPrinter II, use the Epson LQ driver EPSONLQ.DRV instead.

Default resolution: 240 horizontal by 216 vertical dpi. Supports 120 horizontal by 72 vertical dpi draft mode printing with the /L option. Low resolution printing is faster, but the output quality is decreased.

Supports Letter, Legal, and A4 size paper. Supports continuous feed paper. Supports manual paper feed when selected during the installation process. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Supports printing of multiple copies of a page; since each page must be sent to the printer individually, speed is limited.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many other PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

IBM Quickwriter

Use the IBM Quickwriter driver IBMQUICK.DRV with the IBM Quickwriter.

Default resolution: 180 dpi. Supports 360 horizontal by 180 vertical dpi high resolution printing with the /H option. High resolution is slower and requires more memory, but output quality is increased.

Supports Letter, Legal, and A4 size paper. Supports continuous feed paper. Supports manual paper feed when selected during the installation process. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Supports printing of multiple copies of a page; since each page must be sent to the printer individually, speed is limited.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

IBM Quietwriter III

Use the IBM Quietwriter III driver IBMQUIET.DRV with the IBM Quietwriter III printer.

Default resolution: 240 dpi.

Supports Letter, Legal and A4 size paper. Supports continuous feed paper. Supports manual paper feed when selected during the installation process. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Supports printing of multiple copies of a page; speed is limited, since each page must be sent to the printer individually.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

Epson FX Series

Use the Epson FX driver EPSONFX.DRV with Epson FX series printers, and printers that emulate the FX series.

Default resolution: 240 horizontal by 216 vertical dpi. Supports 120 horizontal by 72 vertical dpi draft mode printing with the /L option. Low resolution printing is faster, but produces decreased output quality.

Supports Letter, Legal, and A4 size paper. Supports B size paper (11" x 17" paper size) on wide carriage models when CUSTOM paper size is specified in GSCONFIG.CFG. Supports continuous feed paper. Supports manual paper feed when selected during the installation process. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Supports printing of multiple copies of a page; speed is limited, since each page must be sent to the printer individually.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many other PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

Epson LQ Series

Use the Epson LQ Series driver EPSONLQ.DRV with most Epson LQ printers. Use the EPSONLQ5.DRV driver with the Epson LQ-950 and LQ-2550.

Default resolution: 180 dpi (both drivers).

The EPSONLQ.DRV driver supports 360 horizontal by 180 vertical dpi high resolution printing with the /H option. High resolution printing is slower, but produces increased quality output.

The EPSONLQ5.DRV driver supports 360 dpi high resolution printing with the /H option. High resolution printing is slower, but produces increased quality output.

Both drivers support Letter, Legal, and A4 size paper. Both support B size paper (11" x 17" paper size) on wide carriage models when CUSTOM paper size is specified in GSCONFIG.CFG. Both drivers support continuous feed paper. Also, both support manual paper feed when selected during the installation process. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Both drivers support printing of multiple copies of a page; speed is limited, since each page must be sent to the printer individually.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many other PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

NEC Pinwriter 24-Pin Dot Matrix Printers

Use the NEC Pinwriter driver NEC24.DRV with NEC Pinwriter 24-pin dot matrix printers.

Default resolution: 180 dpi. Supports 360 dpi high resolution printing with the /H option. High resolution printing is slower, but output quality is increased.

Supports Letter, Legal, and A4 size paper. Supports continuous feed paper. Supports manual paper feed when selected during the installation process. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Supports printing of multiple copies of a page; speed is limited, since each page must be sent to the printer individually.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many other PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

Toshiba 24-Pin Dot Matrix Printers

Use the Toshiba 24-pin driver TOSH24.DRV with Toshiba 24-pin dot matrix printers.

Default resolution: 180 dpi. Supports 360 dpi high resolution printing with the /H option, in the printer models P351SX, P341SL, P321SL. High resolution printing is slower, but output quality is increased.

Supports Letter, Legal, and A4 size paper. Supports continuous feed paper. Supports manual paper feed when selected during the installation process. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Supports printing of multiple copies of a page; speed is limited, since each page must be sent to the printer individually.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many other PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

Fujitsu DL-Series 24-Pin Dot Matrix Printers

Use the Fujitsu DL series driver FUJITDL.DRV with Fujitsu DL 24-pin dot matrix printers.

Default resolution: 180 dpi. Supports 360 horizontal by 180 vertical dpi high resolution printing with the /H option. High resolution printing is slower and requires more memory, but produces increased quality output.

Supports Letter, Legal and A4 size paper. Supports B size paper (11" x 17" paper size) on wide carriage printers when CUSTOM paper size is selected.

Supports continuous feed paper. Supports manual paper feed when selected during the installation process. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Supports printing of multiple copies of a page; speed is limited, since each page must be sent to the printer individually.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

Panasonic KX-1124 24-pin Dot Matrix

Use the Panasonic KX-1124 driver PANAKX24.DRV with Panasonic KX-1124 dot matrix printers.

Default resolution: 180 dpi. Supports 360 dpi high resolution printing with the /H option. High resolution printing is slower and requires more memory, but output quality is increased.

Supports Letter, Legal and A4 size paper. Supports continuous feed paper. Supports manual paper feed when selected during the installation process. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Supports printing of multiple copies of a page; speed is limited, since each page must be sent to the printer individually.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

Siemens PT 90

Use the Siemens PT 90 driver PT90.DRV with Siemens PT 90 printers.

Default resolution: 240 dpi.

Supports Letter and A4 size paper. Supports continuous feed paper. Supports manual paper feed when selected during the installation process. To use manual feed, remove the paper supply from the printer and insert each sheet as prompted during printing.

Supports printing of multiple copies of a page; speed is limited, since each page must be sent to the printer individually.

The printable area on each page is slightly smaller than that of the Apple LaserWriter and many PostScript printers due to internal limitations of the printer. Alignment of the printed image on the paper is achieved by mechanical adjustment of the paper feed tractors.

Okidata ML 321

Refer to the README file for information on this printer.

Xerox 4045

Use the Xerox 4045 driver XRX4045.DRV with Xerox 4045 printers.

> NOTE: The printer must be set in Xerox 4045 (or Xerox 2700) mode for use with *GoScript*. This option may be set with the configuration switches on the front of the printer.

Default resolution: 300 dpi. Supports 150 dpi draft mode printing with the /L option. Draft mode printing is faster and does not require memory expansion in the printer, but quality of output is reduced.

> NOTE: This laser printer must have at least 1.5MB of memory to print a letter-size page at 300 dpi. If a page exceeds the printer's memory, part of the page may be lost in transmission, and an error message may be displayed.

Supports Letter, Legal and A4 size paper.

Due to the internal architecture of this laser printer engine, some fine lines or thin text may not be clearly printed. Avoid using single-dot-width lines or extra light typefaces with this printer driver.

Other Supported Output Devices

GoScript supports several alternate output devices in addition to the printers listed above.

EGA Screen Driver

Use the EGA screen driver EGA.DRV with EGA and compatible monitors.

When this driver is specified, *GoScript* generates the image of the page onscreen. You can see *GoScript* assemble your page as it progresses through the print file. Supports full screen display.

Supports /W command line option if the driver is specified in the DISPLAY parameter of GSCONFIG.CFG.

This driver is useful for quick previews of your PostScript language file.

VGA Screen Driver

Use the VGA screen driver VGA.DRV with VGA and compatible monitors.

When this driver is specified, *GoScript* generates the image of the page onscreen. You can see *GoScript* assemble your page as it progresses through the print file.

Supports /W command line option if the driver is specified in the DISPLAY parameter of GSCONFIG.CFG. Supports full screen display.

This driver is useful for quick previews of your PostScript language file.

TIFF Format Output

Use the TIFF driver TIFF.DRV to direct *GoScript* output to a TIFF format file.

This driver allows you to save page images in TIFF format at various resolutions. Multiple pages are output into multiple files with filenames starting with GSTIF001.TIF, with increments to a maximum of GSTIF999.TIF.

Use the configuration program GSCONFIG.EXE to specify the TIFF driver in the DRIVER = field of GSCONFIG.CFG, or use the /P command line option to specify TIFF output for the current print job.

The default resolution is 300 x 300 dpi. This driver also supports the following resolutions: 400 x 400; 360 x 360; 360 x 180; 300 x 300; 240 x 216; 204 x 196; 196 x 196; 180 x 180; 150 x 150; 120 x 72.

Specify resolution after the driver name in GSCONFIG.CFG. For example:

```
DRIVER = TIFF.DRV /hxv
```

where h is the horizontal resolution and v is the vertical resolution.

To specify TIFF output at 360 x 180 dpi, change the driver statement in GSCONFIG.CFG to:

```
DRIVER = TIFF.DRV /360x180
```

or specify TIFF output at the default resolution, 300 x 300 dpi, for the current print job only on the command line:

```
GS /PTIFF.DRV \path\filename.PRN
```

Supports Letter, Legal and A4 size pages.

PCX Format Output

Use the PCX driver PCX.DRV to direct *GoScript* output to a PCX format file.

This driver allows you to save page images in PCX format at various resolutions. Multiple pages are output into multiple files with filenames starting with GSPCX001.PCX, with increments to a maximum of GSPCX999.PCX.

The default resolution is 300 x 300 dpi. This driver also supports the following resolutions: 400 x 400; 360 x 360; 360 x 180; 300 x 300; 240 x 216; 204 x 196; 196 x 196; 180 x 180; 150 x 150; 120 x 72.

Specify resolution after the driver name. For example:

```
DRIVER = PCX.DRV /hxv
```

where h is the horizontal resolution and v is the vertical resolution. To specify PCX output at 360 x 180 dpi, modify the driver statement in GSCONFIG.CFG as follows:

```
DRIVER = PCX.DRV /360x180
```

or specify PCX output at the default resolution, 300 x 300 dpi, for the current print job only on the command line:

```
GS /PPCX.DRV \path\filename.PRN
```

Supports Letter, Legal and A4 size pages.

LaserGo GoCard

Use the *GoCard* SX driver GOCARDSX.DRV with the *GoCard* for HP Series II and Canon LBP-8II printers. Use the *GoCard* CX driver GOCARDCX.DRV with the *GoCard* for HP LaserJet Plus and Canon LBP-8A1/8A2 printers.

The *GoCard* provides fast transfer of the page image created by *GoScript* to the laser printer engine, bypassing the limited performance of the Centronics parallel port.

The *GoCard* Controller Card can be used with computers based on PC/XT/AT compatible buses, connected to HP or Canon brand printers with SX or CX engines.

Do not install the *GoCard* Interface Manager software if you are using *GoScript*. *GoScript's* driver includes the capabilities of the *GoCard* Interface Manager. Install the *GoCard* Interface Manager only if using other application software that requires this driver.

Supports 300 dpi printing on Letter, Legal, and A4 size paper. No printer memory expansion is needed. Supports 150 dpi draft mode printing with the /L option.

Supports manual feed when selected from the printer's front panel.

Supports printing of multiple copies of a page at the rate of 8 pages per minute.

The printer must be equipped with the paper tray corresponding to the paper size selected in the GSCONFIG.CFG file, even if manual feed is used.

The printable area on each page is equal to that of the Apple LaserWriter.

Supports the following parameters:

/A Specifies the port address configured with DIP switch 1. If this parameter is specified, the alternate port address (DIP switch 1 on) of 0340h is selected. If omitted, the factory default port address (DIP switch 1 off) of 0280h is selected.

/In Specifies the interrupt level configured with DIP switch 2-3. Supports interrupt level 2 (DIP switch 2 on, 3 off) or interrupt level 3 (DIP switch 2 off, 3 on). If omitted, the factory default interrupt level (interrupt level 2) is assumed.

/T+n /T-n Specifies an adjustment factor for the top margin of every printed page. The top margin is the area from the top edge of the paper to the first printable line. The adjustment is measured in 0.01" increments. A positive adjustment increases the top margin, and a negative adjustment decreases the top margin. This option can be used to compensate for variations between printers, or to override the predefined margins of some application programs.

NOTE: There are limits built into each printer which cut off the printed image when it nears the top and bottom edges of the paper. For this reason, there is a limit to the possible adjustment range which varies between printers.

/L+n /L-n Specifies an adjustment factor for the left margin of every printed page. The left margin is the area from the left edge of the paper to the first printable position. The adjustment is measured in 0.01" increments. A positive adjustment increases the left margin; a negative adjustment decreases the left margin. This option can be used to compensate for variations between printers, or to override the predefined margins of some application programs.

NOTE: There are limits built into each printer which cut off the printed image when it nears the left and right edges of the paper. For this reason, there is a limit to the possible adjustment range which varies between printers.

Intel Visual Edge System

Use the HP LaserJet Series II driver LJII.DRV with the Intel Visual Edge System. The Visual Edge System is supported via the EMS Graphics Manager.

GoScript requires at least 2MB of expanded memory to work with the Visual Edge System.

Follow these steps to configure your system:

1 Install the Visual Edge hardware and software.

2 Load the Visual Edge driver VE.COM

3 Load GRAPHMGR for the same printer port you plan to use with *GoScript*. For example, type:

GRAPHMGR /LPT1

4 Configure *GoScript* for the HP LaserJet Series II, and for the printer port specified via the GRAPHMGR command.

This enables you to print full letter-size pages at 300 dpi without adding expansion memory to the laser printer.

Tall Tree JLaser 5

Use the Tall Tree JLaser 5 driver JLASER5.DRV with the JLaser 5 card.

Supports 300 dpi printing on Letter, Legal and A4 size paper.

No memory expansion is required in the laser printer when you use the JLaser 5.

Inset Systems Hijaak

Use the Inset Systems driver INSETPCL.DRV with Inset Systems Hijaak software to generate output in fax format.

Supports 196 dpi resolution in HP PCL format for HiJaak conversion to several fax modem internal file formats.

Refer to Hijaak software documentation for further instructions.

D

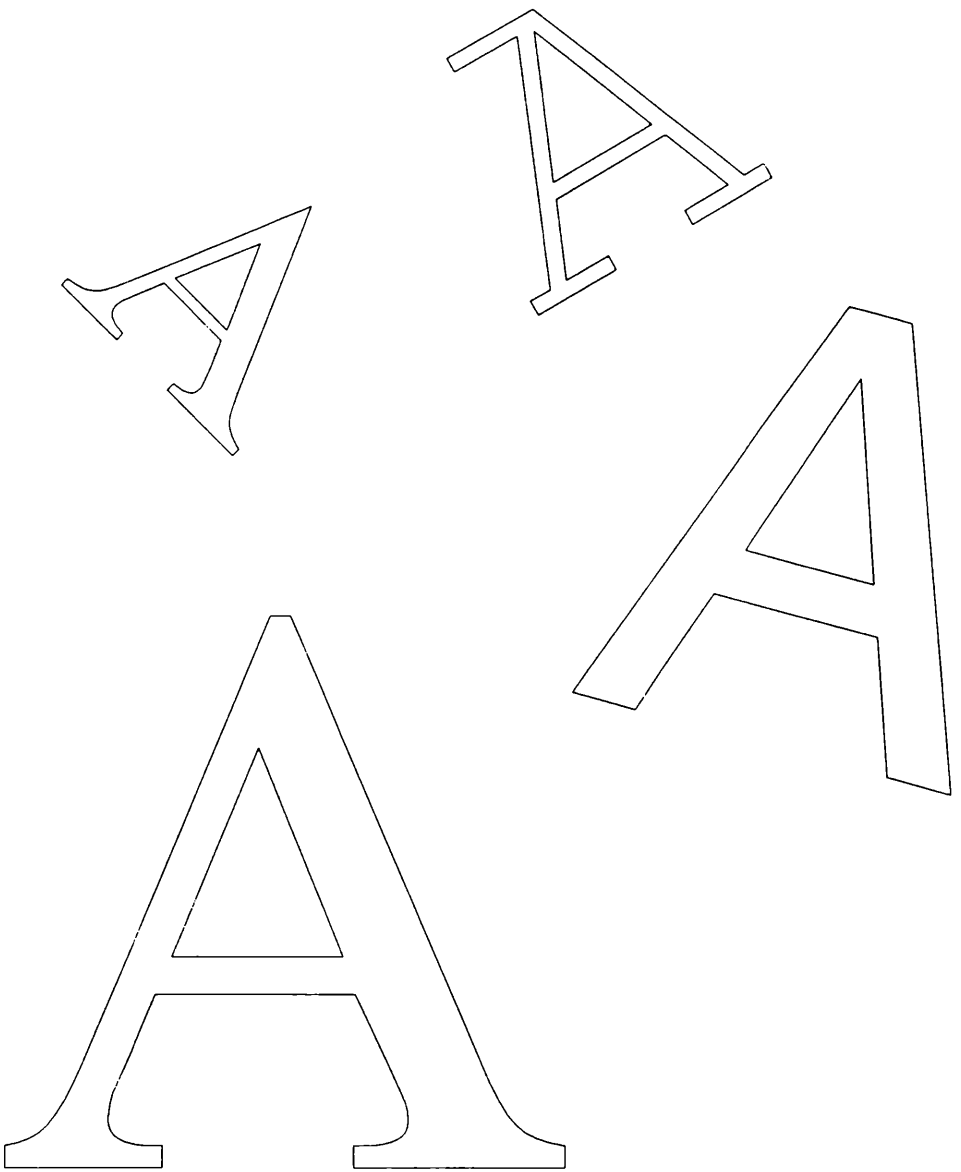
Sample Printouts

The following pages contain sample printouts of the *GoScript* demo files.

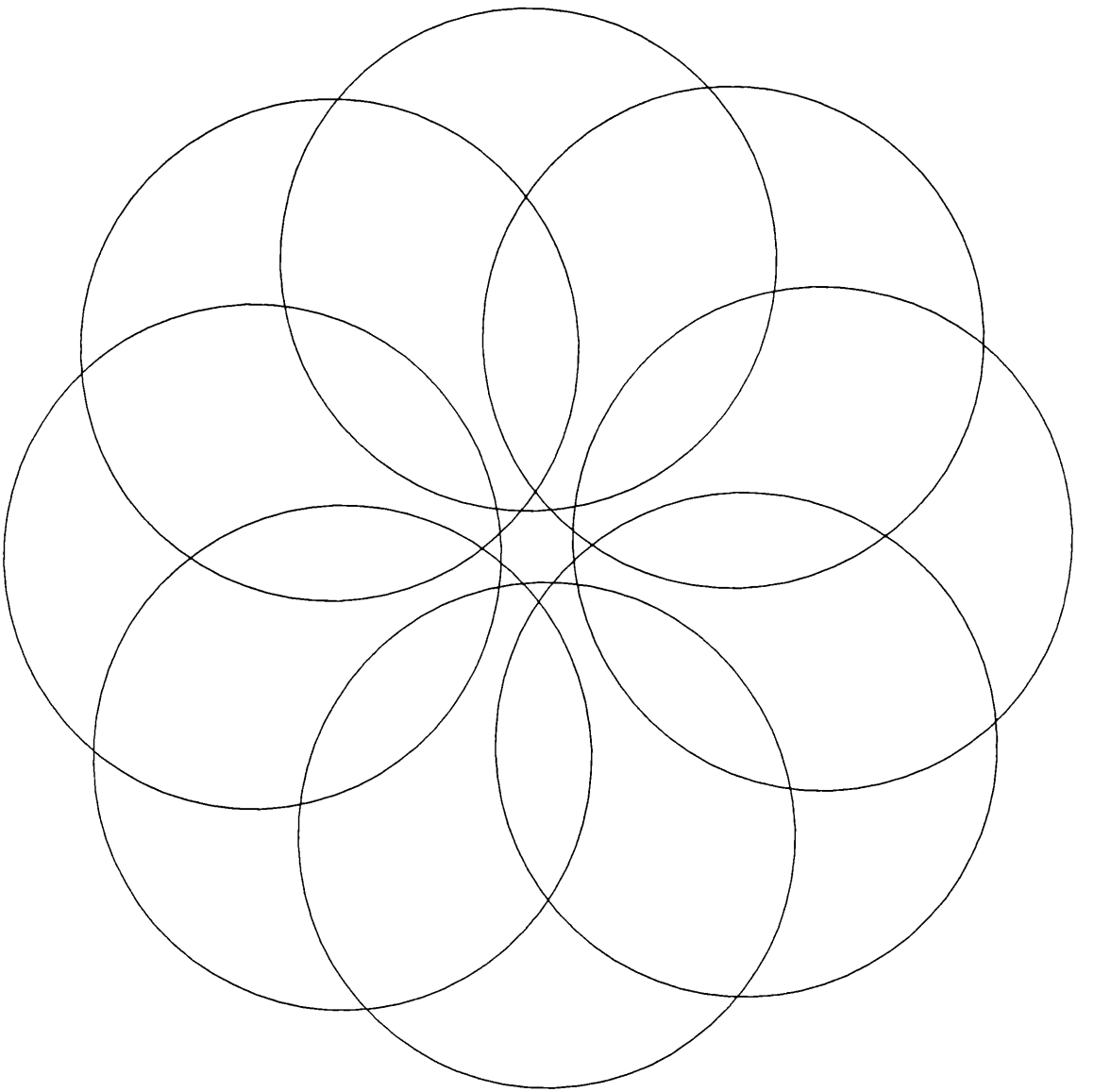
Also included is a simple PostScript language program that you can try. Use *GoScript's* interactive mode. A sample of the printout is shown.

ABCabc123 - Printed by GoScript (R) from LaserGo, Inc.

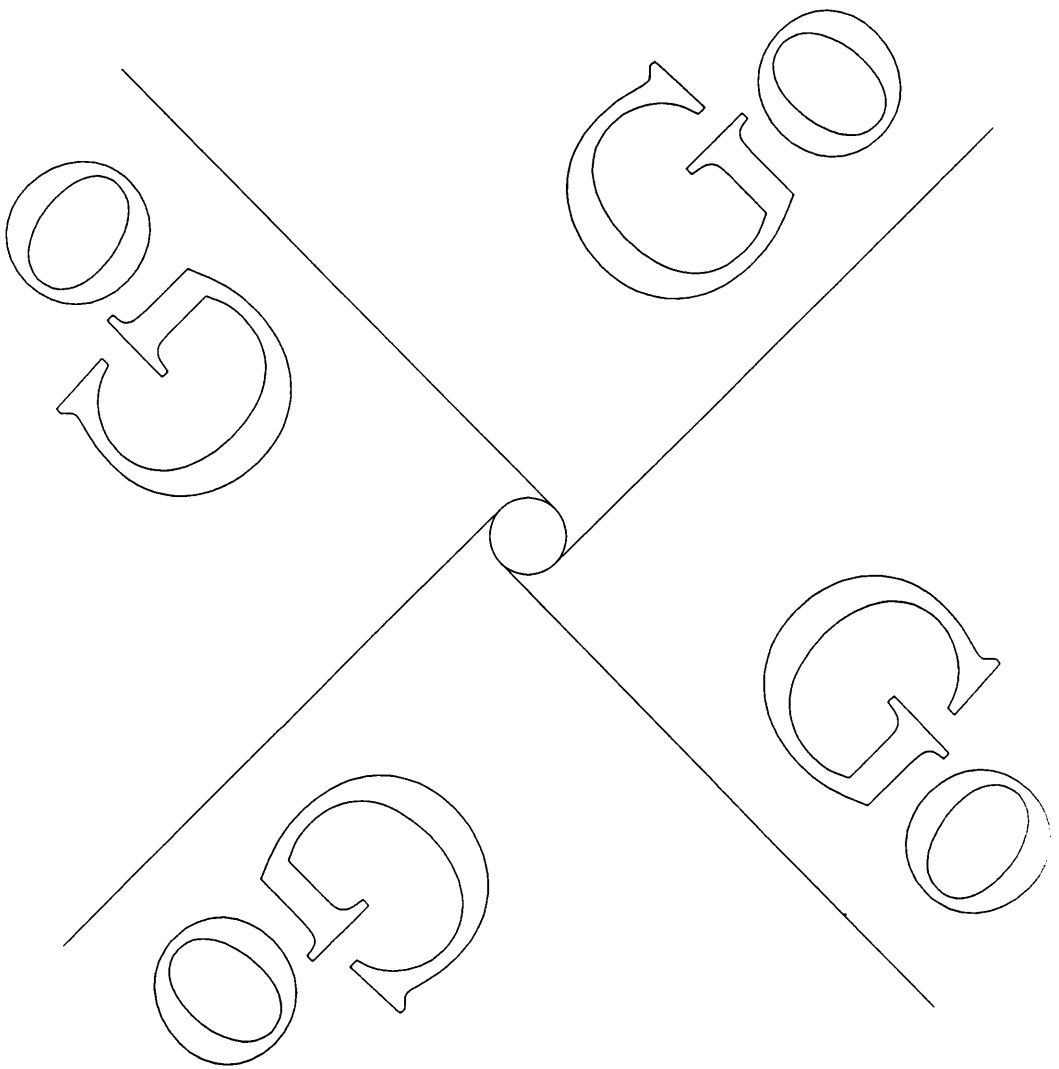
Printed by GoScript (R) from LaserGo, Inc.



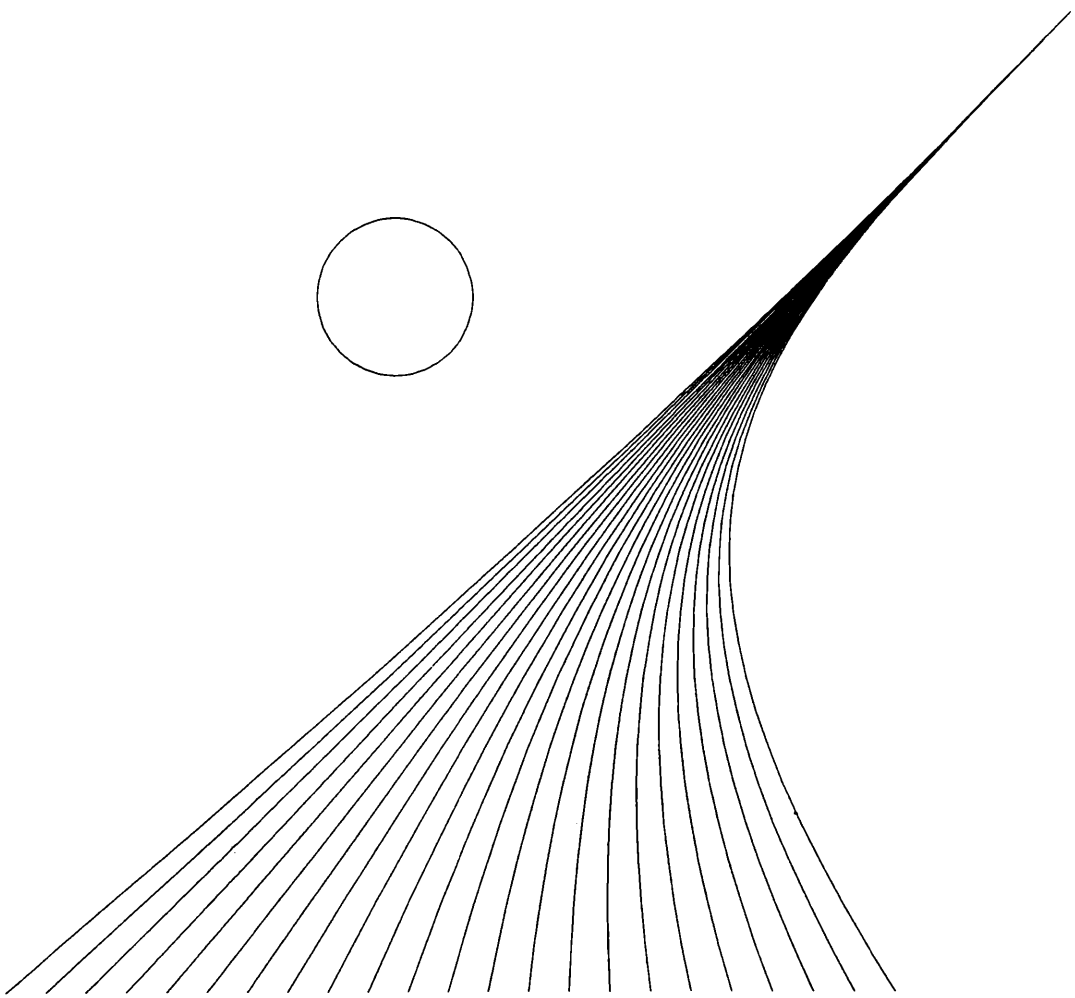
Printed by GoScript (R) from LaserGo, Inc.



Printed by GoScript (R) from LaserGo, Inc.



Printed by GoScript (R) from LaserGo, Inc.



for the *GoScript Plus Edition.*

Print Demo of Fonts Included with GoScript ® Plus Edition

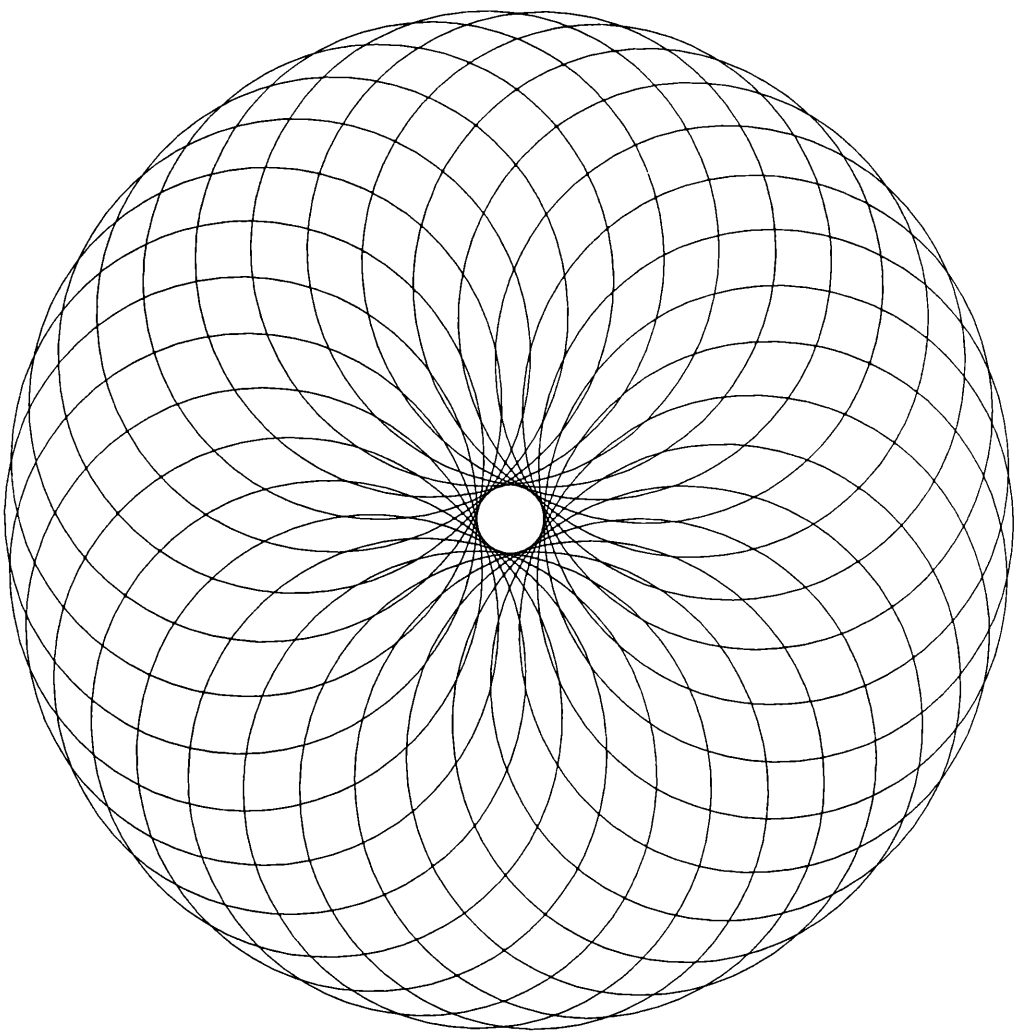
F_3000 is similar to Times-Roman abcdefgABCDEFG
F_3001 is similar to Times-Italic abcdefgABCDEFG
F_3002 is similar to Times-Bold abcdefgABCDEFG
F_3003 is similar to Times-BoldItalic abcdefgABCDEFG
F_3004 is similar to Helvetica abcdefgABCDEFG
F_3005 is similar to Helvetica-Oblique abcdefgABCDEFG
F_3006 is similar to Helvetica-Bold abcdefgABCDEFG
F_3007 is similar to Helvetica-BoldOblique abcdefgABCDEFG
F_3008 Courier abcdefgABCDEFG
F_3009 Courier-Oblique abcdefgABCDEFG
F_3010 Courier-Bold abcdefgABCDEFG
F_3011 Courier-BoldOblique abcdefgABCDEFG
F_3012 Symbol αβχδεφγΑΒΧΔΕΦΓ
F_3013 is similar to AvantGarde-Book abcdefgABCDEFG
F_3014 is similar to AvantGarde-BookOblique abcdefgABCDEFG
F_3015 is similar to AvantGarde-Demi abcdefgABCDEFG
F_3016 is similar to AvantGarde-DemiOblique abcdefgABCDEFG
F_3017 is similar to Bookman-Light abcdefgABCDEFG
F_3018 is similar to Bookman-LightItalic abcdefgABCDEFG
F_3019 is similar to Bookman-Demi abcdefgABCDEFG
F_3020 is similar to Bookman-DemiItalic abcdefgABCDEFG
F_3021 is similar to Helvetica-Narrow abcdefgABCDEFG
F_3022 is similar to Helvetica-Narrow-Oblique abcdefgABCDEFG
F_3023 is similar to Helvetica-Narrow-Bold abcdefgABCDEFG
F_3024 is similar to Helvetica-Narrow-BoldOblique abcdefgABCDEFG
F_3025 is similar to NewCenturySchlbk-Roman abcdefgABCDEFG
F_3026 is similar to NewCenturySchlbk-Italic abcdefgABCDEFG
F_3027 is similar to NewCenturySchlbk-Bold abcdefgABCDEFG
F_3028 is similar to NewCenturySchlbk-BoldItalic abcdefgABCDEFG
F_3029 is similar to Palatino-Roman abcdefgABCDEFG
F_3030 is similar to Palatino-Italic abcdefgABCDEFG
F_3031 is similar to Palatino-Bold abcdefgABCDEFG
F_3032 is similar to Palatino-BoldItalic abcdefgABCDEFG
F_3033 is similar to ZapfChancery-MediumItalic abcdefgABCDEFG
F_3034 is similar to ZapfDingbats ✪✪✻✻✻✻✻✡✢✢✤✤✦✧

Interactive Mode Program

In interactive mode, type the following PostScript language commands exactly as they appear.

```
/inch {72 mul} def
0 setlinewidth
newpath 4.25 inch 5.5 inch translate
30 {2 inch 0 1.75 inch 0 360 arc stroke 12
rotate} repeat
showpage
quit
```

The following is a printout of the above PostScript language program.



G

Glossary

Bit Map. A Cartesian method of representing (mapping) a picture dot by dot (bit by bit).

Bit Map Font. A font in which character information is stored as a bit map image. A bit map font can be used at only one point size, in one orientation, and at one output device resolution.

Bold. A heavy weight, upright typestyle which is commonly used for headlines and for emphasis in body text.

Cache. See Font Cache.

Configuration File. A file that contains start up instructions for a program. For example, CONFIG.SYS contains start up instructions for DOS; GSCONFIG.CFG contains start up instructions for *GoScript*.

Conventional Memory. Memory in the 640KB memory area used by DOS.

Dot Matrix Printer. A printer which produces markings on a page by impact of a mechanical printhead. Because of the mechanical tolerances involved, resolution of a dot matrix printer is often not as good as that of a laser printer.

EMM. Expanded Memory Manager. A device driver which manages an expanded memory board.

EMS. Expanded Memory Specification. Developed by Lotus, Intel and Microsoft. *GoScript* can utilize expanded memory if it conforms to this specification.

EPS. Encapsulated PostScript. An EPS file is a PostScript language file (often a graphic image) in a form which can be imported into pages in other PostScript language-generating applications. For example, EPS files usually do not include the PostScript language "showpage" page eject command, in order to avoid ejecting two pages (one for the graphic and one for the page described by the application).

Expanded Memory. A block of memory (typically 2-4MB) which can be mapped, through a paging scheme, into a 64KB window in the 1MB area of memory accessible to a program running under DOS. Expanded memory is different from extended memory.

Extended Memory. Memory in 80286 and 80386 based machines above the 1MB area accessible to DOS.

Font. A particular typeface in a single typestyle. For example, Courier, Courier-Bold, Courier-Oblique and Courier-BoldOblique are the four fonts from the Courier typeface that are included with *GoScript*.

Font Cache. When a character from an outline font is called for, it is first converted to a bit map format. The most recently used bit map characters are stored in the font cache. If the character is needed again, it is already available in bit map format and does not need to be generated from the outline description.

Interactive Mode. A mode of *GoScript* in which PostScript language commands are entered directly from the keyboard and feedback is displayed on the screen. In interactive mode, PostScript language commands are addressed directly to the interpreter.

Italic. A normal weight, slanted typestyle variation of a serif font. Often lighter in appearance than the upright version. Used for emphasis in body text. See Oblique.

Landscape. A page in which the longer side is in the horizontal direction is printed in landscape orientation.

Laser Printer. A printer which produces markings on a page using an electrophotographic process. A rotating drum receives a charge from a laser beam as it rotates. The laser beam is modulated by the page image as it scans across the drum. Toner is deposited onto the charged areas of the drum and transferred to the paper. Because the laser beam can have a very small diameter, a laser printer can have a very high resolution.

Numeric Coprocessor. A chip that performs floating point calculations in hardware. A numeric coprocessor can be installed in a socket on the system board of your computer.

Oblique. A normal weight, slanted typestyle variation of a sans serif font. Used for emphasis in text. See Italic.

Outline Font. A font which contains a geometric description of the lines and curves which form each character. A character in an outline font can be scaled to any size, rotated, filled, or otherwise transformed by a series of mathematical operations.

PCL. Printer Command Language. Generally refers to Hewlett-Packard's set of LaserJet printer commands. These commands are control codes that provide access to printer features such as raster graphics.

PCX. A bit map graphics standard developed by Zsoft Corporation. This format is often used by paint programs and other bit map oriented applications. PostScript, on the other hand, is vector oriented.

Point Size. The size of the characters in a font, measured in points. Usually measured from the top of an upper case letter to the bottom of the descender of a lower case character.

Point. A unit of measure which, in the PostScript language, represents 1/72".

Portrait. A page in which the longer side is in the vertical direction is printed in portrait orientation.

PostScript. An interpretive programming language with powerful graphics capabilities and extensive page description. A modern standard for electronic printing which integrates text and graphics.

Preamble File. A file containing instructions and definitions for an interpreter in PostScript language code. Some applications provide a separate preamble file which must be run through the interpreter before the actual print file.

Printer Driver. A program containing printer specific codes which allows *GoScript* to generate the page image for each particular printer.

Print File. An output file, generally produced by an application program, which contains page descriptions in the PostScript language.

Resolution. The number of dots per inch printed by a particular output device.

Roman. A normal weight, upright typeface which is commonly used in body text.

Sans Serif. A typeface design in which the ends of the strokes forming the characters are ended cleanly.

Serif. A typeface design in which the ends of the strokes forming the characters are embellished with small secondary strokes.

Stack. A way of sorting information in which individual items are retrieved in reverse order from how they were added, much like a stack of dishes in a cafeteria. The item most recently added to the stack, known as the top of the stack, is first in line to be retrieved.

TIFF. Tag Image File Format. A bit map graphics standard. This format is often used by paint programs and other bit map oriented applications. PostScript, on the other hand, is vector oriented.

Typeface. A type design based on common design elements, and normally available in roman, bold, and italic or oblique typestyles. For example, Roman, Sans, and Courier typefaces are included with *GoScript* in several typestyles.

Typestyle. A particular style of a typeface; for example, roman, bold, and italic or oblique typestyles are usually available for a particular typeface.

Virtual Memory. The area of memory in which *GoScript* stores procedures, data, structures describing the fonts in use, and other information.

Width Compatible. Containing the same font spacing characteristics. *GoScript's* fonts have widths matched to those of the corresponding Apple LaserWriter fonts.

XMS. Extended Memory Specification. Developed by Microsoft to provide a standard method for storing data in extended memory.

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A Program to Print PostScript Text and Graphics on Laser, Ink Jet and Dot Matrix Printers

Express yourself with these GoScript features:

- Gain access to your application's PostScript language text and graphic element manipulation features: rotation, precise font scaling, special effects, kerning ...
- Enhance your document with high quality, scalable outline fonts licensed from URW/The Company
- Use the Print-to-Disk option to save your processed documents to a file, then send them to the printer later
- Use the bitmap-save-and-restore option to save the raw bitmap image; then restore and merge it anytime with subsequent PostScript language documents
- Run GoScript in interactive mode to experiment with programming in the PostScript language
- Use GoPrint™ utility to print ordinary ASCII text files in your choice of typeface and size
- New menu-driven configuration utility walks you through GoScript's options
- EGA and VGA screen drivers -- preview your PostScript language files onscreen
- Save GoScript output in TIFF or PCX format
- Supports LIM EMS expanded memory, XMS 2.0 extended memory, and math coprocessor, if available
- Menu-driven interface
- Uses your PC's resources to their best advantage
- Printers supported: Hewlett-Packard: LaserJet Series II, IIP, IID, LaserJet +, DeskJet, DeskJet +, PaintJet, PaintJet XL; Epson: LQ and FX; Toshiba: 24-pin series; Canon LBP-8II, 8A1/8A2, LBP-8III, LBP-4, BubbleJet BJ130, BJ130e, NEC: Pinwriter; IBM: ProPrinter, Quietwriter, Quickwriter III, LaserPrinter; Fujitsu: DL series; Panasonic KX-1124; Intel Visual Edge; Tall Tree JLaser 5; Siemens: PT 90, PT 10; Kyocera: F-series; others

System Requirements

- IBM PC/XT/AT, PS/2 or compatible, running PC- or MS-DOS 3.0 or later
- 640 KB of memory in PC (550KB avail.) and a fixed disk
- Recommended: 1MB or 2MB LIM EMS expanded memory in PC; Optional: numeric coprocessor
- Laser printers require 1MB in printer, or video interface, to print a full letter-size page at 300 dpi

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